Mentoring For 21st Century Skills
It's All About The Learning

**Edited by
Helen Keegan
and Anne Fox**

vit@e
vitae-project.eu

List of contributors:
Anne Fox (Project Coordinator), CV2, Denmark
Cristina Costa, The University of Salford, United Kingdom
Helen Keegan, The University of Salford, United Kingdom
Judita Kasperiúniené, Baltic Education Technologies Institute, Lithuania
Dr Laurent Borgmann, University of Applied Sciences, Koblenz, Germany
Marcus Feßler, University of Applied Sciences, Koblenz, Germany
Thomas Berger, Institut inter.research e.V., Germany
Torhild Slåtto, NADE (Norwegian Association for Distance and Flexible Education), Norway

Education and Culture DG
Lifelong Learning Programme

Illustrations by Laimuté Varkalaité
Design by Population:One

Mentoring For 21st Century Skills

It's All About The Learning

Edited by
Helen Keegan
and Anne Fox

Preface

The rise of social software, often termed Web 2.0, has resulted in heightened awareness of the opportunities for creative and innovative approaches to learning that are afforded by network technologies. Social software platforms and social networking technologies have become part of the learning landscape both for those who learn formally within institutions, and for those who learn informally via emergent web-based learning communities. As collaborative online learning becomes a reality, new skills in communication and collaboration are required in order to use new technologies effectively, develop real digital literacy and other 21st century skills.

It is against this backdrop that the VITAE partnership came together to develop a blended course which effectively trains vocational trainers in the use of Web 2.0, taking an intercultural, mentoring approach. Mentoring as a teaching/learning approach is key to the project, as it is believed that a focus on learner-centred knowledge construction and the social aspects of the learning process are vital for trainers in the use of Web 2.0 who are themselves learning new skills in terms of digital literacies and technologies, in order to pass on those skills to others. A range of learning and mentoring activities have been implemented across a series of pilots across five countries, using a variety of social networking and social software platforms through an iterative cycle of course development. Data has been collected from each pilot, highlighting commonalities and differences, issues and factors for consideration.

By its very nature, an international project partnership is characterised by diversity. In this book, we present a collection of papers and articles which represent the varied backgrounds and interests of the authors, all of whom belong to the VITAE team who developed the materials and approaches which are outlined here. While some articles are practical in their focus, describing the application of pedagogic models and the experiences of the participants; others are more theoretical, offering in-depth explorations of the approaches taken in developing the VITAE model.

Chapter 1, **Teacher competence development - a European perspective**, presents an introduction to teacher competence development from a pan-European perspective focusing particularly on Lithuania where the initial VITAE pilot took place. **The VITAE Approach** (chapter 2) takes a more in-depth view of the model developed for training teachers in the use of Web 2.0, and can be used as a practical description which gives useful advice when implementing new teaching methods by using the VITAE model, along with examples which illustrate some of the challenges faced by our team when implementing the VITAE course. Chapter 3, **Exploring Web 2.0 and Mentoring as Tools for Lifelong Learning**, offers an experience report from a blended-learning business simulation with young managers, demonstrating the transfer of the approach to a more

traditional educational environment (with a special emphasis on Web 2.0 and mentoring). The description of activities is designed to encourage other teachers to try out new techniques and adapt them to their own needs.

Chapter 4, **Guided course development on the basis of an e-learning patterns template**, outlines the fundamentals of developing a successful moderated and collaborative e-learning course. Templates are included which may be of use to those who wish to try the approach in their own course design. **Games-based learning approaches** are described in chapter 5, where we are presented with three examples of games that have been used to explore the VITAE approach of training vocational teachers in the integration of ICT and mentoring their colleagues in this integration. Chapter 6 introduces e-portfolios, which as a core feature of the VITAE approach are explored from a multi-platform perspective, demonstrating how the e-portfolio can function as a powerful tool in the learning process, acting as a solid learning catalyst and stimulus within a course. **Community-based mentoring and innovating though Web 2.0** is the focus of Chapter 7, where we describe the online VITAE communities and their formation across platforms, exploring issues surrounding sustainability, multilingualism, mentoring in practice and organisational challenges.

The final chapter, **Web 2.0 – Learning Culture and Organisational Change**, introduces the change management perspective of VITAE focusing on how to deal with resistance towards the implementation of 'new pedagogies' and their associated technologies in educational organisations. It aims to provide support to those who would like to implement e-learning and new teaching methods in their organisations, introducing an approach to change management in educational settings which attempts to change resistance from a hindering to a productive element of the change process.

In summary, this book begins with what is essentially the background to the project (Chapter 1), followed by a descriptive account of VITAE itself (Chapter 2) and the culmination of the work through its transferability to another context (Chapter 3). Chapters 4, 5, 6 and 7 offer more in-depth perspectives on various aspects of the VITAE approach, and finally Chapter 8 offers a broader organisational perspective for those who are introducing Web 2.0 approaches at the institutional level.

Helen Keegan
June 2009

Chapter 1

Teacher competence development – a European perspective

*Judita Kasperiúniené and
Cristina Costa*
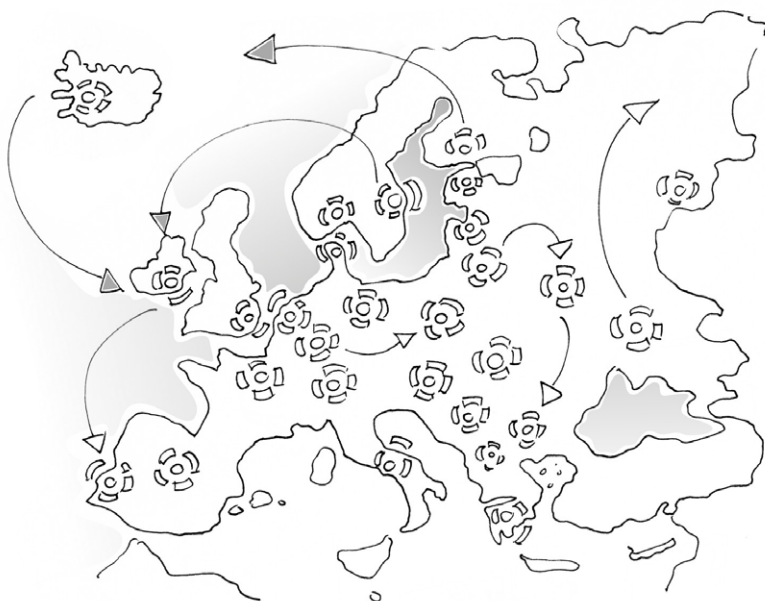
Introduction

In the last decade the integration of Information and Communication Technologies (ICT) in Education has been high on the agenda for most European countries. National and European policies and initiatives have made it clear that both access to ICT and the acquisition of e-skills are vital to the development of a modern, globally competitive society. Training in ICT becomes vital as a form of paving the way for an educational system where the new technologies will be embedded as part of the teaching and learning experience in formal, non-formal and informal scenarios. The European Council's Lisbon Strategy (2000), complemented by the Copenhagen Declaration, aimed, among other things, to pay special attention to the learning needs of teachers and trainers so as to improve the quality of Vocational Education and Training (VET) and prepare for an increasingly dynamic and competitive market. ICT has thus become core to the new training strategies. Several initiatives and numerous projects have since been developed at European level, seeking to accomplish the goals set forward by the European Commission and also national strategies. The VITAE project was planned and developed to help meet that same purpose.

In this introductory chapter we offer a brief overview of the educational panorama in the VITAE Project partner countries, providing readers with national examples of current practice before presenting the Lithuanian case-study in detail, as this was one of the first implementations of a VITAE course. Finally, we will summarize the experiences reported, while presenting the challenges encountered and the lessons learnt.

1.1 Background

Traditionally, someone was often considered competent in the workplace when he/she was thought to have the necessary knowledge, skills, and ability to consistently perform a particular job or task well. Although this may have been true in the past, currently, the notion of 'competency' has acquired a new dimension. It not only relates to the knowledge one holds, but also to one's ability and initiative in seeking opportunities to develop adequate ongoing 'knowing' as to answer the constant new demands of his/her job. The 21st century employer expects their employees to be versatile and adaptable to working situations which are constantly changing. We thus see a corresponding shift in the role of the educator, who (in many contexts and cultures) has become a facilitator of learning rather than a transmitter of information. Lifelong learning has become central to the individual of the modern society, hence new forms of pursuing one's learning path also need to be designed and made available so as to provide the individual with updated and flexible learning opportunities. E-learning has increasingly become a pertinent option to assist the individual to innovate in his/her own practice in a more consistent way with

his/her current needs. Hence, preparing educators for the effective use of ICT for teaching and learning is seen as essential. It will not only place them in the 21st century e-skills sphere; it will equally enable them to mentor learners towards their future in a more autonomous, connected and contextual way, while they themselves also develop their own skills and practice.

In this article, we will centre our study on educators' competence development. By educators we understand the different roles learning facilitators might have, regardless of the kind of educational institution they might be involved in. Hence, we will use the term 'educators' in a generic sense to refer to teachers (educators operating at school level); tutors (those providing support to individual students); lecturers and professors (educators working in Higher Education); or trainers (educators providing individuals with vocational training). Our focus however, will be particularly on teachers and trainers. Teachers are employed in the various vocational schools, while trainers are skilled workers in enterprises, who provide trainees with the knowledge and practical skills required for an occupation (CEDEFOP, 2009).

In many countries, if one wishes to become an educator, he/she must first be qualified as such. Professional teaching qualifications or credentials are often issued by Higher Education Institutions. These professional qualifications may include the study of pedagogy, education sciences, didactics etc. Our work, however, focuses on additional competences regarded as essential for the 21st century educators' further professional development (VITAE project white paper). 21st century skills are centred on the development of mentoring and Web 2.0 competences for teaching and learning (Nikolov, 2007; Grodecka, Wild and Kieslinger, 2008).

Following significant changes in the European labour market, new requirements for teachers and trainers are announced every day. Such educational changes emphasize the need for new methodologies to guide and support learners in their learning process, and also new pedagogical trends, especially in the preparation of didactic content and learning opportunities. E-Learning 2.0 techniques inspire innovative, more flexible and individualised solutions seeking to meet individual learners' needs. Thus, there is an impetus for educators to cooperate with learning technologists in the integration of ICT and in the creation of meaningful learning contexts related to their practice. The development of educators' competences in this area is therefore crucial.

The development of e-competences among educators who also deliver e-learning is directly influenced by the context in which they work. New working contexts require new practices, hence the redefinition of the competence evaluation process, as well as new assessment methods regarding the learning process itself. In order to boost the qualification of teachers and trainers, and educators in general, it is necessary to estab-

lish proper contextual learning situations where educators can develop such competences to both learn and mentor their learners, and also peers. This should include new (self-) assessment possibilities, access to relevant information as well as tools for the creation of new content (Volungeviciene and Rutkauskiene, 2006).

vate in his/her own practice in a more consistent way with his/her current needs. Hence, preparing educators for the effective use of ICT for teaching and learning is seen as essential. It will not only place them in the 21st century e-skills sphere; it will equally enable them to mentor learners towards their future in a more autonomous, connected and contextual way, while they themselves also develop their own skills and practice.

In this article, we will centre our study on educators' competence development. By educators we understand the different roles learning facilitators might have, regardless of the kind of educational institution they might be involved in. Hence, we will use the term 'educators' in a generic sense to refer to teachers (educators operating at school level); tutors (those providing support to individual students); lecturers and professors (educators working in Higher Education); or trainers (educators providing individuals with vocational training). Our focus however, will be particularly on teachers and trainers. Teachers are employed in the various vocational schools, while trainers are skilled workers in enterprises, who provide trainees with the knowledge and practical skills required for an occupation (CEDEFOP, 2009).

In many countries, if one wishes to become an educator, he/she must first be qualified as such. Professional teaching qualifications or credentials are often issued by Higher Education Institutions. These professional qualifications may include the study of pedagogy, education sciences, didactics etc. Our work, however, focuses on additional competences regarded as essential for the 21st century educators' further professional development (VITAE project white paper). 21st century skills are centred on the development of mentoring and Web 2.0 competences for teaching and learning (Nikolov, 2007; Grodecka, Wild and Kieslinger, 2008).

Following significant changes in the European labour market, new requirements for teachers and trainers are announced every day. Such educational changes emphasize the need for new methodologies to guide and support learners in their learning process, and also new pedagogical trends, especially in the preparation of didactic content and learning opportunities. E-Learning 2.0 techniques inspire innovative, more flexible and individualised solutions seeking to meet individual learners' needs. Thus, there is an impetus for educators to cooperate with learning technologists in the integration of ICT and in the creation of meaningful learning contexts related to their practice. The development of educators' competences in this area is therefore crucial.

The development of e-competences among educators who also deliver e-learning is directly influenced by the context in which they work. New working contexts require new practices, hence the redefinition of the competence evaluation process, as well as new assessment methods regarding the learning process itself. In order to boost the qualification of teachers and trainers, and educators in general, it is necessary to establish proper contextual learning situations where educators can develop such competences to both learn and mentor their learners, and also peers. This should include new (self-) assessment possibilities, access to relevant information as well as tools for the creation of new content (Volungeviciene and Rutkauskiene, 2006).

The VITAE project consortium reviewed existing research regarding the use of Web 2.0 learning approaches in Europe, especially regarding the situation in the partner countries, and also with a special emphasis on the Lithuanian case. The following sections will briefly introduce particular case studies on the implementation of Web 2.0 initiatives in Denmark, Norway, the UK, and Germany. The Lithuanian experience will then be presented in detail in order to give a holistic example of how VITAE operates within a larger system. Key issues about peer mentoring ('teacher teaches teacher') through practical activities regarding the use of Web 2.0 technologies (often entitled Mentoring 2.0) will be highlighted through a brief discussion of challenges and lessons learnt, offering a rationale for the VITAE approach.

1.2 Supporting e-learning development in vitae project countries

Despite the growing body of evidence on the impact of ICT use by learners, the exploitation of its full potential is still in progress, and will depend largely on how teachers use ICT within the teaching and learning process in a meaningful way.

The ICT impact report by the European Schoolnet (Balanskat et al, 2006) stresses the importance of the use of ICT being directly associated with a pedagogical approach to improve the learning experience. However, an overwhelming body of evidence shows that the majority of educators still haven't fully embraced the new pedagogical practices. They do not yet feel confident in exploiting ICT to support new approaches in teaching, nor is full support in place to instigate such change in a consistent way. Most educators remain at an initial phase of using ICT to enhance existing pedagogical practice (Cort, et. al, 2004; Balanskat et al, 2006; Rutkauskiene, 2009), and pedagogy is still mostly subject-centred. While Web 2.0 is used in some advanced cases, on the whole, online collaboration and social networking between teacher and student or between students themselves is not yet sufficiently exploited.

There are key areas educators should be empowered with to enable them to perform their revised roles as 21st century educators efficiently and effectively. According to our observations and practice, these include (1) proficiency in the didactical use of ICT to enhance teaching practice; (2) updated knowledge about new teaching and learning methodologies; and (3) peer and community support to encourage and assist in the learning process (both formally and informally).

1.2.1 Existing curriculum requirements

The VITAE project group analysed existing curriculum requirements in the different project partner countries regarding the integration of ICT. Most European countries already require schools, higher education and training institutions to implement ICT in teaching and learning - major changes having occurred in recent decades - and new national and European strategies are driving this change. Nevertheless, the requirements have often been rather general, focusing on the use of the internet to access other information (re)sources, and/or giving particular attention to the technical use of 'traditional' computing tools, such as those used to create slide presentations or processing word documents.

The emerging social web tools, prompting active participation and production of content, are being adopted shyly, but progressively. Although more attention needs to be given to the use of the interactive web as an effective space to communicate, learn and increase one's learning opportunities, considerable progress has been made in recent years in trying to raise educators' awareness about a more active pedagogy, stimulating a more positive attitude towards ICT for teaching and learning. As educators increasingly use ICT to prepare their work, the use of the Web in education is becoming a more natural practice amongst the teaching community.

Balanskat et. al. (2006) highlighted an important finding: ICT has often been shown to have a more positive impact in e-mature schools and amongst e-confident teachers.[1] This suggests that once the foundations are laid, the benefits can be considerable. The challenge is therefore to enable all teachers and educational institutions to reach e-maturity and foster pedagogy of change, centred on the individual's learning activity and inherent context.

There is also evidence regarding change in the roles of educators, either affected by the technology itself or more actively steered by the teachers and trainers. In changing the "teacher–learner relationship" according to the new educational paradigm, the most difficult process for educators, in general, is to give up control and award learners new degrees of trust while mentoring them to plan their own work independently. Hence, new pedagogical strategies have to be learnt. Moreover, new learning approaches need to be experienced and acquired first hand. This will enable individuals to achieve the required e-confidence, which will consequently

[1] The authors consider that "E-maturity is when organisations make strategic and effective use of ICT to improve educational outcomes" (p.2);

help them foster effective change in their practice as educators, and also as lifelong learners.

It was with these ideas in mind that the VITAE project partners committed themselves to develop a course, and also a learning approach, which would put special emphasis on the pedagogical side of the latest web technologies, and where expert, peer and community 'mentoring' would have a fundamental role as part of the individual's learning process and professional practice.

We will now describe several cases from the VITAE partnership countries where the use of learning technologies has been implemented to enhance learning experiences both individually and collectively. Furthermore, such cases have been chosen to illustrate how a shift in practice is taking place in several European countries and how important such initiatives are when trying to cultivate a new learning culture. Triggering change in pedagogical practice and belief is definitely the biggest challenge we face when trying to implement a pedagogy supported by learning technologies.

1.2.2 The use of e-portfolios in Danish VET institutions

In Denmark, the training of teachers in vocational colleges and at labour market training centres is based on the principle of "training-while-practising", i.e. when the teachers are employed by a college or a centre, they are required to attend a compulsory post-secondary in-service pedagogical training course. The course is based on alternating between theory and practice to integrate the teaching experiences into the course. To be employed by a college/training centre, the teacher has to be a skilled worker with a minimum of 5 years of teaching or have graduated from a Higher Education Institution, with, preferably, 2 years of teaching experience. As to training of in-company trainers, there are still no legal requirements.

The Danish Government published its strategy for Lifelong Learning in August 2007 as a contribution to the realisation of the common EU objectives of the Lisbon declaration. The Danish strategy for Lifelong Learning is framed within the liberal-conservative government's globalisation strategy. In the strategy, the government describes how to realise a Lifelong Learning system with the aim of ensuring both competitiveness and social cohesion (Denmark. Overview of the Vocational Education and Training System, 2007).

The new vocational education and training curriculum in Denmark places emphasis on more independent learning, global and intercultural awareness and proof of progress through portfolio compilation. Learners are required to show proficiency in using the school's intranet network and some of the most commonly used ICT tools. The new law also requires that learners are able to use communication forums and assess the trustworthiness of online information in a critical way.

Educators in Denmark are required to use e-portfolios and compile evidence of their teaching practice in the classroom to showcase their students' learning activity. Continuous feedback from the teacher and their interaction with students is the most effective way of stimulating student activity. Working on ongoing, personal e-portfolios is still a new practice with growing acceptance in many European countries.

1.2.3 Norwegian PILOT – online platforms in teaching and learning

Norway's largest and most comprehensive initiative supporting the educational use of ICT in schools is the "Innovation in Learning, Organisation, and Technology (PILOT)" project, which started in 1999.

In this project, 52% of students asserted that ICT increased their performance in school subjects, a figure confirmed by the overwhelming majority of teachers (83%). The PILOT study shows that both reading and writing standards were higher than what was typical for students who did not use computers. It was also observed in this study that students were using ICT and the Internet more frequently and in a more advanced manner, i.e. by increasingly accessing more online educational resources rather than entertainment sites, which is commonly regarded as people's main interest when using the Internet. The qualitative PILOT analysis also shows that text production increased, leading to the effective development of writing competences, critical thinking and reflection. Through a network, teachers reflect on their own practice and on the use of ICT, thereby developing a sustainable online platform for school development. Extended collaboration between schools has been set up with virtual platforms and virtual learning environments. Ongoing formative evaluation allows the processing of research results to be fed back to the teachers and school leaders. The research results show 'good, innovative practices', which act as inspiration for other teachers and students. PILOT contributed to establishing schools as learning organisations in continuous development.

1.2.4 An Overview of the British Educational Scenario

In the UK, just like in most European countries, there has been a major effort by the government to implement ICT in Education. In 2003, the British Secretary of State for Education and Skills presented a document to Parliament which was entitled '21st Century Skills - Realising our Potential (Individual, Employers and Nation)'. In this, ICT skills were considered to be a third 'basic skill' for all adults, which needed to be developed alongside literacy and numeracy. The Skills for Life programme[2] was thus established to meet this goal and has been running ever since to provide and boost the qualifications of learners.

[2] http://www.literacytrust. org.uk/socialinclusion/ adults/skills.html

Several initiatives and projects have derived from the British Government initiative to implement ICT in Education. New teacher training programmes; implementation of e-portfolios for teaching and learning and assessment; e-assessment; and professional development planning have

been areas (amongst others) to which several government bodies have been providing support.[3] Another area of expansion, where the integration of learning technologies is concerned, is Game Based Learning, which has acquired quite a reputation in recent years. Amongst other initiatives, there is the 'Racing Academy' project, a game engine based on physics used to deliver the new 21st century science curriculum. The purpose was to engage a wide range of learners in the study of sciences in a way that was appealing to them by providing contextual, collaborative learning opportunities. The experience was reported to be successful and has created a case for game-based learning as an approach that can work and support learning and teaching in a meaningful way.

[3] For further information please visit JISC, BECTA or Future Lab

Last year, Learning Scotland also started a new game-based learning project, which includes the use of the Nintendo DS (a game console) to learn mathematics. From the reports provided so far the study's results have shown how such initiative can significantly enhance learners' math skills as well as have a positive impact on the learning experience as a whole. Furthermore, it has allowed the teaching of mathematics to become more dynamic and appealing to learners. Attached to such initiatives are the need to train and mentor educators to achieve that e-maturity and e-confidence in the classroom and as part of their professional development plan.

1.2.5 ICT and Teacher Training in Germany

In Germany, the situation is no different. The need to introduce ICT in the classroom has been expressed by several national initiatives. IKT-Standort Deutschland is probably one of the best known measures taken by the German Government. As it is stated in the Federal ministry of Economics and Education website,[4] Germany's goal is to 'increase investment in education and training, to foster business start-ups, and to enhance the dynamism of R&D activities in high-tech sectors', in order to strategically tackle the competitive, digital society.

[4] http://www.bmwi.de/English/Navigation/technology-policy.html

In their academic studies teachers are trained professionally and pedagogically. Upon completion of their training, teachers are not forced into further training, but in every federal state a great variety of training possibilities exists in the area of ICT. For example Rheinland Pfalz runs a media competence program[5] with a 10 point action plan with aims including: 'increasing the lesson quality with ICT', 'advancing teacher training in the area of ICT', and 'creating networks of media competence'.

[5] More at: http://medienkompetenz.rlp.de/, 25.2.2008

In terms of curriculum, general guidelines are given by the state in order to support curriculum development. Such guidelines exist for almost every position, usually containing a paragraph about ICT:

[6] More at: http://www.kmk.org/beruf/rlpl/lehrplan.htm, 25.2.2008

'Die Informationsbeschaffung, - verarbeitung und –auswertung erfolgt integrativ über Medien und informationstechnische Systeme in allen Lernfeldern. Hierfür ist ein Gesamtumfang von mindestens 80 Stunden im Rahmenlehrplan berücksichtigt'[6]

This means that the ability of acquisition, handling and analysis of information in using media and information systems should be integrated in all areas of learning.

SUMMARY: In general, we found that educators from all VITAE project partner countries are gradually starting to use virtual classes, platforms and learning environments in their institutions. Nevertheless, more initiatives need to be in place to help educators integrate learning technologies in their practice. Web 2.0 approaches can help create more attractive, interactive and interchanging learning opportunities, while taking into account personal learner needs. Furthermore, the newest interactive and collaborative tools also enable the creation of spaces for interaction and peer mentoring, not only for learners but for educators as well. Such spaces are especially relevant for those wanting to pursue their learning, cultivate their networks and improve their practice beyond the attendance of scheduled courses and training sessions. There is a growing awareness of the Web as a fruitful environment to continue one's further development in a rather informal, independent, yet connected way.

In the next section we will explore the Lithuanian case in detail as this was the first VITAE pilot, and so informed the further development of the approach (which will be described in Chapter 2). We start with an overview of the challenges the country has faced in recent years concerning the updating of its educational system, before presenting the development and application of e-learning strategies in Lithuania through two case studies; 1) attitudes towards distance education and the use of ICT, and 2) teacher mentoring at the Kaunas University of Technology. Finally, we will explore the Lithuanian VITAE pilot course and the findings in terms of the learner-centred approach, followed by a brief summary of challenges and the lessons learnt.

1.3 New challenges for Lithuanian educators

Lithuania, as a country in transition, is undergoing rapid changes in politics, economics and society relating to the changes that replaced the centralised economy with a market economy. This has happened in parallel with the continuous progress of science and technology, which has resulted in permanent changes where labour market needs are concerned. It has consequently also affected vocational qualifications, which are no longer fully adequate to meet all the new requirements. These changes have given rise to a new set of challenges in the Lithuanian VET system, and also in vocational teacher education (Bünning, F., 2006).

In Lithuania, Lifelong Learning (LLL) training is provided by universities, colleges, vocational schools, adult education centres and other relevant

institutions. Thus, the national LLL system is still very much distributed, and needs to establish a clearer structure. Nevertheless, there is a strong consensus amongst governmental and non-governmental educational institutions that distance education (DE) and e-skills training presents a real opportunity to tackle new educational challenges.

A national study of the e-learning situation in Lithuania (Tereseviciene et al., 2004) showed that it is necessary to increase the quantity and quality of e-learning providers. Such requirement is due to the insufficient knowledge and competences of VET teachers and trainers regarding the use of Web 2.0 technologies. Additionally, it was also found that there is still a lack of efficient planning and organisation of distance studies in the country within the current infrastructure. The lack of learning content developed to meet the new didactical and pedagogical paradigms (Tereseviciene et al., 2004) results in low numbers of motivated learners. Furthermore, there is also an absence of monitoring systems in the country. VET teachers themselves need to be motivated to transform their courses and programmes with the use of Web 2.0 technologies. Peer- training and mentoring for the teachers and trainers are therefore needed.

1.3.1 Lithuanian formal teacher training system

Educators in Lithuania are trained in colleges and universities of educational sciences, accredited by the Ministry of Culture and Education. Other universities may also be able to provide teacher training, but this right is usually granted to the latter. The official number of teacher vacancies per area of expertise is determined by the Ministries of Culture and Education and of Social Welfare, and also by teacher training institutions. There are four levels of teacher training: 1st level - study at a college of educational sciences; 2nd level – a bachelor's degree by a university; 3rd level – masters' studies; and 4th level – doctoral studies.

Vocational teachers may also be trained in specialised universities other than those dedicated to educational sciences. They are required to have a vocational education, work experience in the field, and attend specialised, accredited teacher training courses. The teacher training programme is prepared by the college or university. These institutions are autonomous in determining the content of courses in social sciences, pedagogy, psychology, and methodology subject areas. They also decide on the length of practical training they are submitted to in coordination with the Ministry of Culture and Education. Nevertheless, no special requirements have yet been determined for ICT related subjects.

1.3.2 Vocational education

Educators' professional development is a continuous process. Educational institutions, where teachers are employed, provide the necessary conditions for Lifelong Learning. Lifelong Learning opportunities for teachers are divided into two distinct areas: formal and informal.

Forms of formal professional further development are offered as courses focusing on specific subject areas and also on teaching methodologies, pedagogy, psychology, and social studies. Informal teacher further development is based on the educator's voluntary initiative to pursue his/her own learning (self-education). Nevertheless, such initiatives are encouraged by the educational institutions and supported by the government, provided the learning activities meet the school's own interest. In-service teacher training system is decentralised (fig. 1.1). There are various courses offered in Lithuania for ICT specialists and administrators to develop general skills. In addition to courses delivered by the universities there are also formal, non-formal and informal lifelong learning programmes on the use of ICT and education delivered at a distance.

In recent years most Lithuanian universities have established distance education centres, as in the case of the e-Learning Technology Centre at Kaunas University of Technology; the Distance Study Centre at Vytautas Magnus University, or the Distance Education Centre at Siauliai University. Highly skilled staff within the Centres, along with a modern technical infrastructure, ensures quality in the services provided for internal needs as well as external requirements.

The main activities of the Distance Education Centres are fairly similar to other institutions. They are committed to:

 • Research in the field of distance education;
 • Development of distance education methodologies for content developers, tutors and administrators of distance education courses;
 • Tutor training;
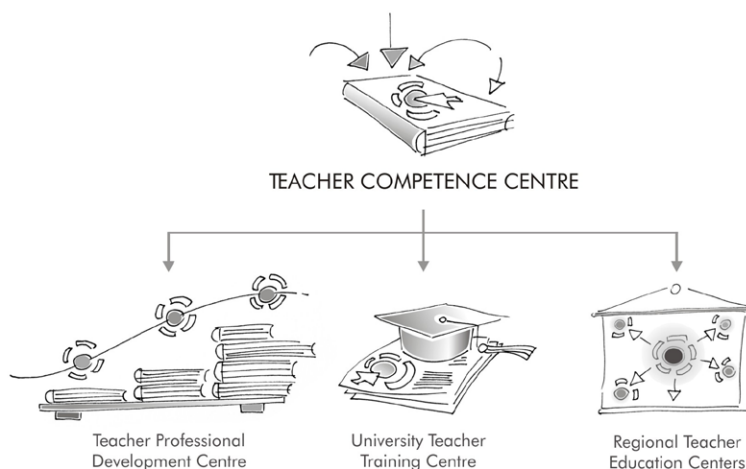
Fig. 1.1 Institutions responsible for teacher training in Lithuania.

- Preparation and delivery of DE courses;
- Cooperation with industry and business sectors, formal and non-formal education institutions;
- Addressing technical and administration issues such as development and support of virtual learning environments, production of audio-video materials for DE, coordination and managing video conferences etc.

One of the goals of the Distance Education Centres is to provide vocational informal learning opportunities for teachers - the DE Centres' staff train and mentor educators to become e-Learning developers and facilitators. This goal meets the mission statement of the VITAE project: 'to train teachers how to use digital media and share their skills with colleagues and students'. But before we do that, we need to ask ourselves if this is really needed.

1.3.3 Demand for e-learning courses by Lithuanian Educational Institutions

The Lithuanian Virtual University (LVU) is a national initiative, which was set up in 2007. The main aim of the LVU initiative is to expand the information infrastructure of Lithuanian science and studies, applying available resources in a drive to develop an effective, coherent and continuous educational system, thus providing the necessary conditions for Lifelong Learning. It also aims to ensure the quality of the educational system while integrating into the common European educational space, as well as preparing specialists of the highest quality to carry out research and ensure the provisions of new possibilities for Lithuanian citizens to acquire knowledge, skills and qualifications that will allow them to adapt to rapidly changing conditions of life and work. It also seeks to expand the programmes for involving disadvantaged groups into the information society through the introduction of Information Technologies.

In 2005 and 2007 LVU initiated two large-scale empirical studies in Lithuania which explored the attitudes of educators towards distance education, their motives for using different kinds of ICT tools and approaches in education, and problems educators meet in providing e-learning courses.

The data showed that in 2005 the majority of educators indicated that they lacked sufficient knowledge regarding Distance Education. After the completion of training courses the situation is slightly different. In 2007 the majority of educators (53%) indicate that they feel capable of developing and providing distance education courses. Furthermore, the attitude towards further professional development of educators has been quite positive in recent years. The majority of educators are open to further training, as stated by 92% of respondents in 2005 and 82% of the respondents in 2007. The study shows that in general educators are willing to participate in new training programs.

The majority of respondents (69% in 2005 and 77% in 2007) reported to have received the information about opportunities to participate in distance education courses.

The interesting detail is that 35% of educators in 2005 had not participated in any educational courses in order to develop the necessary know-how to deliver distance education courses. In the 2007 survey the number had decreased substantially, to 14%, as all educators had an opportunity to participate in training programs. Although the majority of educators (56% in 2005 and 46% in 2007) had acquired knowledge through participating in distance education courses (table 1.1), 22% of respondents had acquired knowledge through self-study practices and autonomous learning.

The main factor which had influenced educators to start organizing distance education courses was their pursuit for innovation and the perception that they were missing out on new forms of teaching and learning. In general terms there was a sense of a lack of Web 2.0 knowledge and practical skills amongst the surveyed Lithuanian educators. This factor was indicated by 75% of respondents in 2005 and by 70% of respondents in 2007. The least significant reason invoked by the respondents was financial incentives; just 12 % of the respondents stated that as the reason why they had enrolled for Distance Education.

The majority of educators (95%) consider that distance education (and using Web 2.0 in education) has a future in Lithuania, with just 1 % of the surveyed educators expressing the opposite opinion.

The main conclusion drawn from these surveys is that the demand for e-learning courses is increasing in the areas of formal, as well as non-formal education. The methods used to provide distance learning services differ from traditional ones, thus educational institutions need to modernise their approach in order to provide this type of service. Teacher mentoring is desired, useful and needed across different types of educational institutions.

Willing to participate in training programmes	2005	92%
	2007	82%
Received information about the opportunity to participate in DE courses	2005	69%
	2007	77%
Acquired knowledge through participation in DE courses	2005	56%
	2007	46%

Table 1.1 Comparison of results from LVU empirical research 2005 and 2007, N=157.

As an approach to improving the competence of all distance education agents, the Lithuanian distance education network together with the Lithuanian Virtual University organizes competitions for e-learning course developers and provides support for institutions willing to adapt and create new e-learning courses. Such initiatives help to promote the new teaching and learning approaches and are gradually influencing the educational community to embrace the 'shift'. In the next section we will describe how Lithuanian institutions are providing educators with the appropriate support for them to engage with these types of activities.

1.3.4 Teacher mentoring in Kaunas University of Technology, Lithuania

The E-Learning Technology Centre of the Kaunas University of Technology was established in 1996 within the framework of the Phare project "Multi-country Co-Operation in Distance Education". The mission of the Centre is to promote and develop a higher and further education system supported by advanced learning technologies. The aim of the Learning Technologies Centre is to support and develop learning technologies in educational processes. This includes e-learning courses and curriculum development, design and delivery of courses and a teacher support system. Additional centre activities are research in the field of distance education and educational consultancy for private and public education organizations, cooperating at local, regional, national and trans-national levels (fig. 1.2).

We integrated the VITAE approach into a teacher mentoring and support system. This was translated into the following areas:
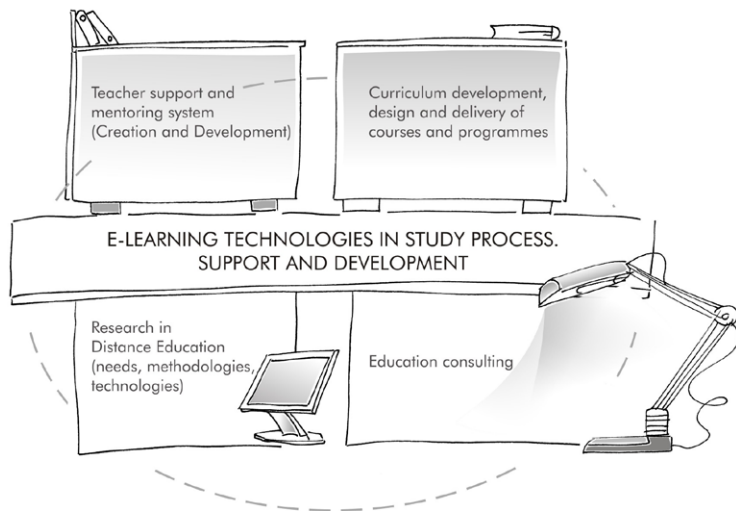
Fig 1.2 Activities in e-Learning Technology Centre at the Kaunas University of Technology.

- Support in e-Studies, ICT administration, e-learning courses, modules and programmes on quality assurance, and individual mentoring activities for University staff;
- Methodological support and practical help for developers and facilitators of e-learning courses, with special emphasis on content creation,facilitation and evaluation of e-learning scenarios, mentoring on knowledge and skills assessment;
- Technical and design support in the creation of digital learning materials and course structures.

This system (fig. 1.3) was established and tested at Kaunas University of Technology.

The implementation of the e-learning approach to practice has resulted in four online programmes delivered by Kaunas University of Technology. 70 accredited modules have been made available in the University's virtual learning environment, and have more than 10 000 registered students. The Learning Technologies Centre provides technical and methodological support to teachers and professors involved in the creation of 24 online modules.

More than 300 educators participate in e-learning competence development courses and seminars. University staff are also given the opportunity to enhance their qualifications by choosing to participate in any of the accredited vocational training courses (8 courses are specially adapted
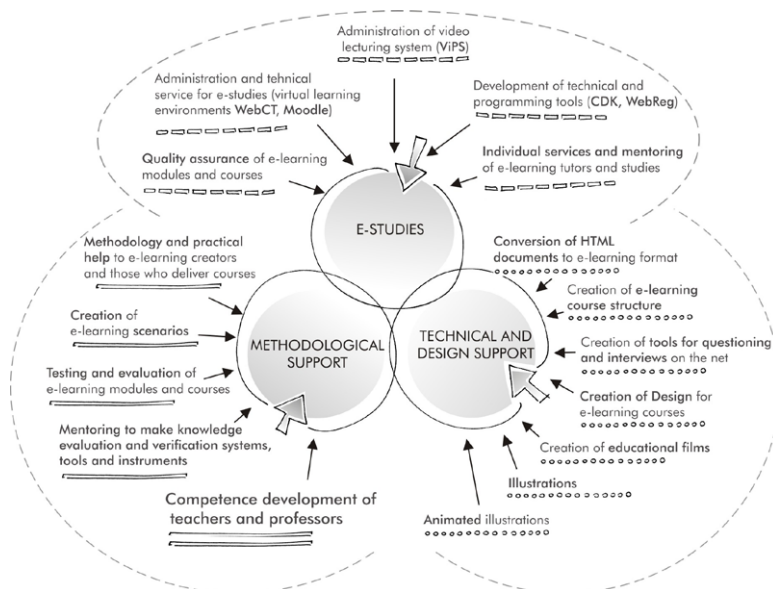
Fig. 1.3 Teachers mentoring and support system (Lithuanian case)

for University staff). Furthermore, University staff also have the opportunity to participate in courses organized by other institutions, and also national and international projects and initiatives.

The opportunities to update and develop one's skills in the use of ICT in the teaching and learning, as a form of fostering one's professional development, has increased considerably in the last few years. Next, we will describe how the VITAE approach has been important in providing space for professional development through mentoring of educators in Lithuania.

1.3.5 The VITAE mentor training course – A pilot project in Lithuania

A new approach to teacher mentoring was proposed in the VITAE projects' 'Train the Trainer' e-learning course. The idea of the course is summed-up in these four phrases: extend your skills; get management support; select internet tools and technologies; mentor colleagues. The VITAE approach was adapted to Lithuanian national needs and the pilot course was delivered in September – December 2008. 32 participants from various national Universities, Colleges, and private institutions (the majority being from Vilnius and Kaunas) initiated the training. 18 of the participants were able to finish the course. Allegedly, the remaining participants did not complete the course due to their busy work schedules and other commitments. The plan of the blended learning course is presented in table 1.2.

The main emphasis in the VITAE course pilots was not on the technology but on mentoring of educators regarding the use of technologies. Course participants were very interested in the sessions, and the discussions motivated them to transfer that knowledge to their practice, i.e, educators immediately started to apply the new technologies to their daily work.

During the course the following question was discussed: 'Will virtual learning environments still be used in the future, or do you think that Web 2.0 technologies will replace virtual learning environments?'

This prompted a very rich discussion in terms of participation and sharing of ideas by the course participants. Above all, participants agreed that mentoring was vital as part of their personal learning development and that it helped them to start exploring Web 2.0 technologies with both more confidence and motivation. Next we will share personal statements provided by the VITAE pilot course participants, which show how important the mentoring approach is in the development of one's skills. One of the participants said that *'...when I made this (assignment) I "learned more" about myself and my personal learning needs, about the needs and desires of my colleagues', 'we had the opportunity to think about our knowledge', 'I learned about new methods of teaching, about new technologies', 'it was a good idea to learn more about my students and to explore the needs of other institutions - both private and public', 'it was inspiring and interesting to be mentored by the other course participants - my colleagues'.*

Table 1.2 - VITAE course plan (Lithuanian pilot)

1	**Introductory session**	Face to face or video conference. Video conference was recorded.	Course plan and structure presented. Peer mentoring idea described. Participant needs, wishes and desires determined and evaluated.
2	**Online discussion**	Personal introduction: my values and beliefs about teaching & learning.	Discussion without moderation was organised in the virtual learning environment Blackboard.
3	**Social networking**	Discussion about teacher's role in building the information society + paper presented by a Lithuanian researcher on four scenarios about the future.	Online platform NING.
4	**Online discussion in groups**	"Teacher mentors teacher" –activity called "Teacher in the process of change".	Discussion was organised in the virtual learning environment Blackboard and moderated by the group leaders.
5	**Individual assignment**	Analysis of learner's institution and teacher's e-learning needs. Participants were asked to write their personal e-portfolio and to discuss the assignments, to mentor colleagues, to share their challenges and achievements in the online forum.	The assignment was two-fold: **1.** To analyse the e-learning situation in participants' own institutions: **a.** To search for information: do I (or teachers in chosen institution) use e-learning as part of my teaching practice; what I (or teachers in chosen institution) need; what I (or teachers in chosen institution) lack; what I (or teachers in chosen institution) wish for; **b.** To start a personal portfolio and to write about the development of e-learning in their chosen institution, from their personal perspective. **2.** To conduct a small study on users or providers of e-educational services. **a**. To create a questionnaire; **b.** To find an online tool and create a questionnaire online; **c.** To administer the questionnaire to approximately 15-25 respondents (target audience: e-educational service users or providers); **d.** To process data and write personal conclusions (reflection).
6	**Face to face session about new technologies**	Taste the Web 2.0 Technologies	Learning technologies presented - Google mail, Google calendar, Google docs usage in classroom (joint document creation); webcast, podcasts, Videocast (YouTube and TeacherTube), video stream (usage of internet TV in lecture), Slidecast (PPT presentations online).
7	**Group assignment**	Theme of assignment "Transformation of study actor's role in the e-learning process". Two study target groups were suggested- teachers and learners. Course participants formed groups and engaged in discussions regarding the topics of learning technologies and mentoring. Later they decided on several topics about the change of roles of teacher/ learner.	Every course participant made a synchronous presentation using technology he/she chose and felt comfortable with, e.g. VIPS (video lectures support system, created in Kaunas University of Technology), a webcast, Horizon, or another online presentation system) and presented on one of chosen topics. Other course participants evaluated colleagues' work in joint discussions.

The Lithuanian pilot showed that while educators are interested in new technologies they lack Web 2.0 skills, and the best method to engage educators with this new approach is to create opportunities for them to try it through practical online assignments, discussions and social activities.

Through this pilot experience we concluded that a learner-centric approach is suitable for Lithuanian educators and that a peer mentoring methodology works very well with educators across the educational system, i.e. teachers, university lecturers and professors.

1.4 Our challenges and lessons learned

Today's economic situation, changes in society, ongoing educational reforms and approaches, and developments in e-learning provide a starting point for planning future steps that are more in tune with the needs of contemporary society. Professional development of 21st century learning and teaching skills helps prepare all agents in the field of education to integrate ICT in their classrooms and institutions. Emphasis on the need for educators to develop e-skills is imperative to the updating and improvement of national educational systems, and these should be aligned with national educational standards, curriculum and assessments, in order to develop a more consistent approach.

There are many ways in which educators can pursue ICT and Web 2.0 training. Initial teacher training is starting to include ICT in the curricula. Senior educators need to find other forms of being introduced to the learning possibilities of Web 2.0. Professional further development in the area of ICT for educators can still benefit from more initiatives such as the VITAE approach in order to create a wider range of learning and mentoring opportunities which will innovate the educational system as a whole.

As we have demonstrated in the cases presented above, 'ICT in Education' programmes and initiatives are presented in all the VITAE project partner countries. Nevertheless, additional training for teachers is still required as part of their lifelong learning provision, and also as a way of keeping up with the transformations in education in a fast-paced world. As demonstrated by our description of the Lithuanian system, this training could be provided by special departments and centres where the educational professionals work, or by various national or international projects or initiatives.

The idea of peer training is valued by educators, and new opportunities for educators to collaborate and learn from each others' experiences and questions need to be developed so as to enable new formal, non-formal and informal learning opportunities. The VITAE approach is designed to allow participants to learn together through experience using a range of online tools. The course itself is described in further detail in chapters 2 and 3.

References

Balanskat, A., Blamire, R., Kefala, S. (2006): The ICT Impact Report. A review of studies of ICT impact on schools in Europe. Available from http://insight.eun.org/shared/data/pdf/impact_study.pdf (last accessed: 14 May, 2009)

Bünning, F. (2006) The Transformation of Vocational Education and Training (VET) in the Baltic States - Survey of Reforms and Developments , p. 173, ISBN: 978-1-4020-4340-6

Cort, P., Härk nen, A., Volmari, K. (2004): PROFF – Professionalisation of VET teachers for the future. Available from: http://www2.trainingvillage. gr/etv/publication/download/panorama/5156_en.pdf (last accessed: 14 May, 2009) ISBN 92-896-0327-5

Denmark. Overview of the Vocational Education and Training System (2007). Available from: http://libserver.cedefop.europa.eu/vetelib/eu/pub/cedefop/eknowvet/2007_TO_DK.pdf (last accessed: 13 May, 2009)

Downes, S. (2005): E-Learning 2.0. Available from: http://www.downes. ca/post/31741 (last accessed: 12 May, 2009)

eLearning country report for LITHUANIA. Available from: http://www. euser-eu.org/ShowCase.asp?CaseTitleID=600&CaseID=1237&MenuI D=109 (last accessed: 12 May, 2009)

Grodecka, K., Wild, F., Kieslinger, B. (2008): How to use Social Software in Higher Education, p. 130, ISBN 978-83-60958-28-5

Nikolov, R. (2007), Towards Web 2.0 Schools: Rethinking the Teachers Professional Development. Available from: http://hdl.handle. net/1820/1064 (last accessed: 12 May, 2009)

O'Reilly, T. (2005): What is Web 2.0. Design Patterns and Business Models for the Next generation of Software. Available from: http://www. oreillynet.com/pub/a/oreilly/tim/news/2005/09/30/what-is-web-20. html (last accessed: 12 May, 2009)

Rutkauskiene D., Butkeviciene E. et al. (2009): Opportunities and Challenges of Distance Education: In Perspective of Educators, Web-based Education (WBE 2009), March 16 – 12, 2009, Phuket, Thailand

Sajiene, L., Dailiene, E. (2003): Mentor Role in the Changing Context of Vocational Teacher Training: Learning in the Workplace. In Vocational Education, Research and Reality (Vol.6, p.p.104-115).

Tereseviciene M., Cibulskis G. et al. (2004): Distance Education in Lithuania. National Study. Prepared during the implementation of Phare project 'Development of Distance Education in Lithuania'.

Volungeviciene, A., Rutkauskiene D. (2006): Supporting e-Learning development processes: creating context for teacher competence development in Lithuania. Available from: http:// www.liedm.lt/cms/files/liedm/ resources/2031_Volungeviciene_Rutkauskiene_EDEN_2006_revised.doc (last accessed: 12 May, 2009)

The VITAE Approach

Anne Fox and Marcus Feßler
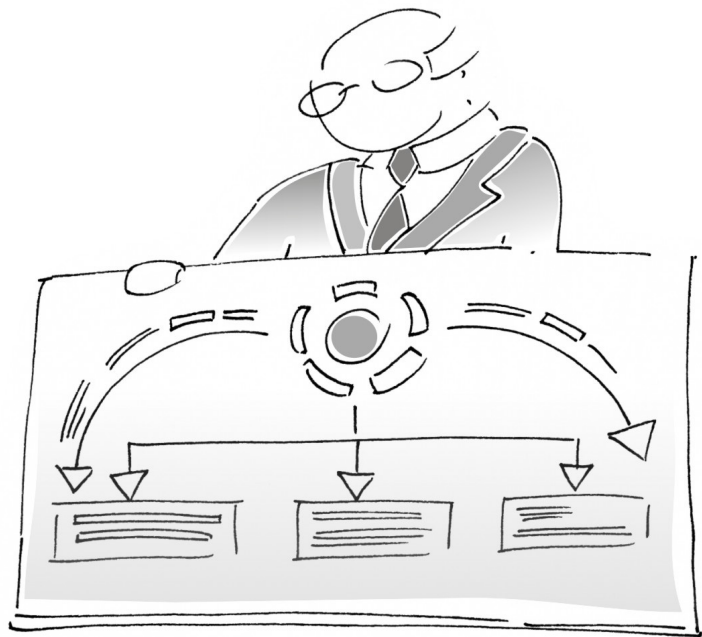
Introduction

This chapter describes the model developed for training teachers in the use of Web 2.0 (blogs, wikis, podcasts, social network sites etc.). It contains descriptions of best approaches and best practices in implementing e-learning/blended learning in TVET[1] institutions. It can be used as a practical description which gives useful advice when implementing new teaching methods by using the VITAE model, along with examples which illustrate some of the challenges faced by our team when implementing the VITAE course.

2.1 The general approach of the VITAE project

The VITAE project addresses the problem of the frequent lack of impact of one-off training courses to embed ICT in everyday practice by proposing that TVET[1] teachers should not only be trained in the pedagogically sound integration of ICT, but also in how to diffuse that expertise by becoming mentors for their colleagues. Building on previous experience and research, the project team decided to integrate the ICT and mentoring training into one overall training approach which is shown in the cake model (fig 2.1).

The three-tiered model shows the integrated digital tool and mentor training course "Train the trainers" as the top tier of the cake. Note that learning to use the ICT tools is only one of four aspects addressed by the course; the other three being securing institutional support, learning to mentor colleagues and using tools to actively improve and extend your own personal learning environment so that when the course ends, the learning does not. This course element of the cake is supported by the Experience-based Learning (EBL) approach in that VITAE participants learn by doing and by trends in Information and Communication Technology (ICT) leading to cheap and ubiquitous low threshold applications. The second tier of the cake is in turn, supported by a third tier which is the wider community in which knowledge-sharing takes place through a community of practice and various knowledge repositories.

So what does this mean for a course participant?

The VITAE course targets teachers who are already using or want to use internet-based tools in connection with their lessons in the classroom. The tools are a means of raising the level of professional communication for the learners both inside and outside the classroom. The VITAE course is a mentoring course, which leads the teachers through the most useful of the overwhelming number of available, free online-tools. The mentors accompany the teachers if they introduce and use the tools in the classroom (with technical support but with the focus on pedagogical aspects).

[1] Technical and Vocational Education and Training

The key tool for VITAE participants is the Learning Activity Checklist (LAC – see fig. 2.2) which acts as a checklist for planning the new approach with their learners. In keeping with the role of technology as an enabler rather than the prime focus, the LAC guides teachers by focusing on which authentic and meaningful activities could fulfill specific parts of their syllabus. Only then need teachers consider which ICT tools could help them. This is the essential question[2] approach to planning learning whereby students address real problems in the community. The community can be interpreted very widely but even in instances where it refers primarily to the local community, it will often be relevant to consult experts outside the community and to communicate with the community itself asynchronously. Thus the social aspect of learning is to the fore and it will often be relevant to apply social networking ICT tools in order to make potential for communication as wide as possible.

[2] See for example: http://www.huffenglish.com/?p=363

2.1.1 The Inter-Cultural journey

As mentioned above the VITAE training is designed to focus on pedagogy rather than technical detail. The project group recognised from previously published results and personal experience that the introduction of Information and Communication Technology (ICT) can be negatively received by a significant proportion of the teaching population. It was therefore decided to use the well-known analogy of digital immigrants and digital natives first put forward by Marc Prensky in 2001[3] as the guiding story for the VITAE training course. Thus the VITAE course becomes an inter-cultural journey.

[3] Prensky, M., Digital natives, digital immigrants, 2001
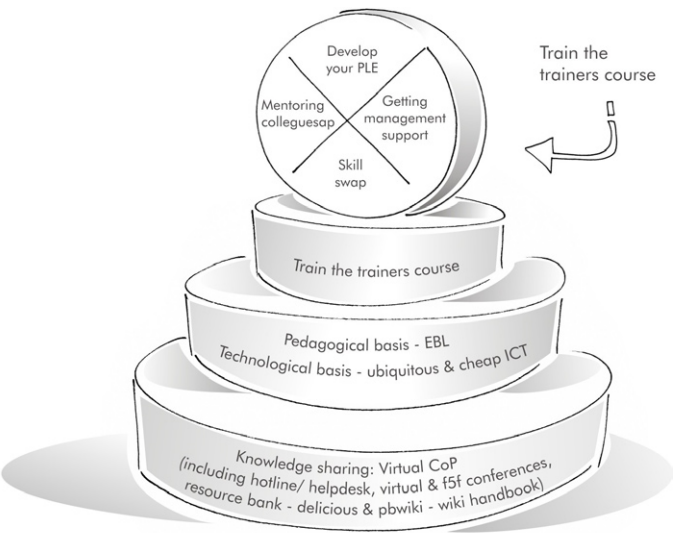
Fig. 2.1 VITAE train the trainers model

Fig. 2.2 Learning Activity Checklist

1. Final product:

2. Learning outcomes: What will your students be able to do as a result of the learning activity?

3. Challenge: What are the compelling (because personally relevant) questions students will be asked to address?

4. Authenticity: The final product reflects what people might actually do in the real world (the experience-based learning model or EBAM).

5. High level thinking: Which critical or creative thinking skills, decision-making, scientific inquiry or problem solving are required of the students by this task? (ref Bloom's taxonomy)
    List or describe activities that support the selected Bloom's levels:
    Knowledge / Analysis / Comprehension / Synthesis / Applicaton / Evaluation

6. Technology: what is needed for the execution of this task?

7. Can this product be made without using the above technology? If yes, then consider removing ICT use for this learning activity.

8. Level of ICT integration of this learning activity according to Salmon's 5-step model (consider achieving a progression of the 5 levels over the long term)
    - **Access and motivation**   • **Information exchange**   • **Development**
    - **Online socialization**   • **Knowledge construction**

9. Differentiated instruction: Teaching is significantly and clearly tailored to learning readiness, cultural back ground, interests, talents and learning profile of each student.

10. Resources needed:

11. Activity timing:

12. Feasibility: How much time needs to be spent on this task? A rough guide (weeks or lessons) will help you decide if the effort is in proportion to the anticipated learning outcome(s).

13. How are you going to assess whether the students have achieved the learning outcomes for this activity?

14. Reliability: Does the proposed assessment allow you to measure the success of the learning activity across different student groups?

Anchor activities	Tiered instruction	Learning centers
Adjusted questions	Personal agendas	Compacted curriculum
Flexible grouping	Learning contracts	Graphic organisers
Exit cards	Interest based investigations	

Administrative information

15. Institution:

16. Course:

17. Subject:

18. Validity: Which part of the curriculum does this activity cover?

19. Topic/skill:

An important part of that journey will be trying 'new dishes' and learning about new 'customs' and these key intercultural situations form a major part of the intercultural learning journey. The stages of the journey (which could mean the modules of the online course) are shown below:

What could I explore?	How could I explore it? (task examples)
1. The way we do things round here	reflection on current practices, identify personal learning network
2. Our values and beliefs about teaching & learning	reflection on good teaching & effective learning
3. Preparing for the journey: camera, diary and vaccinations	starting an e-portfolio and completing a competence assessment
4. Key learning situations Let us try a few of their 'dishes' and 'customs', the new surroundings	
a. How could I access and provide information? (wiki, blog, people)	e.g. using Moodle, wiki, blog, podcast etc. in the form of case studies and problems
b. How could I manage information more efficiently? (RSS, aggregators, iGoogle)	e.g. I want to insert a picture into a blog post. There is a problem uploading it directly from my computer onto the blog. What is an alternative way of achieving the same result? (Answer: upload to a site like "Flickr" and embed)
c. How could I document my learning? (blog, wiki, video, podcast, e-portfolio)	e.g. "50 ways of telling a story".[4] Which would you use?
d. Exploring the learning process (PLE network & e-portfolio, the experience of being a digital learner, group processes)	e.g. Implementing the AdultEd Online[5] tool
e. professional development (mentoring, pd assessment & planning tool)	e.g. by using the Guide to Social Learning produced by the Australian Flexible Learning Framework[6]
f. Choosing the best tool for the job	

Think about:	How could I manage this?
5. What do I want to take home with me? (and what do I need to do to make sure that I will take it with me)	transform a teaching session so that it makes optimal use of digital resources using the VITAE learning activity checklist template[7]
6. Culture clashes	critical incidents – case studies
7. Speaking with the digital natives - How they do things over there	reflecting on examples of good practice by contacting teachers with prior experience
8. Telling the folks back home, helping them prepare for the journey	sharing your experience with peers, mentoring

[4] http://cogdogroo.wikispaces.com/50+Ways, 09.12.2008

[5] http://www.adultedonline.org/index.cfm

[6] http://socialelearning.flexiblelearning.net.au/index.htm

[7] See p. 37

2.1.2 100% mobile

As it becomes clearer that most people own a mobile phone and value the ability to communicate while on the move, the VITAE project is committed to making as much of its materials available by mobile device as possible. This does not imply that all VITAE participants must receive and send course tasks via their mobile phones; it simply implies that the course materials are available in this format should it be required.

2.1.3 100% digital

This does not mean that the VITAE course is 100% distance learning. Rather it refers to the fact that the VITAE trainers should model what they are training by documenting the course in digital format wherever possible. VITAE trainers require participants to document digitally their course experience. Therefore discussions can be recorded for a podcast, talks can be transformed into digital presentations and pictures can be uploaded and tagged so that they are accessible. This makes the course a total immersion in the digital culture even when the topic under discussion, such as copyright, is not directly related to using a Web 2.0 tool.

2.1.4 100% mentoring

Originally it was envisaged that the VITAE project could only achieve its aims by offering two separate courses, an ICT training course and a mentor training course. The development work has shown that it is possible to combine the two by ensuring that the ICT training course models mentoring behavior throughout and includes some exercises to make the mentoring process more explicit.

2.2 Target groups for the vitae mentoring course

If you want to introduce a VITAE mentoring course in your institution, first you need to identify if enough possible participants are available.

The target groups for a VITAE course are teachers who already have some ICT skills and experience and would like to do more. The following profiling tool acts as a checklist for potential participants.

Person profile:

Participants should consider participation if they:
- can find their way round the major word processing and presentation programs
- regularly use the internet as a source of information for their teaching are beginning to be overwhelmed by the pace of new developments in their subject
- need to implement e-portfolios

- need more differentiation in the classroom
- want to try out at least one digitalized teaching session
- are willing to teach and learn from colleagues who may be in another institution

After the course the participants will be able to:

- help their students to think about and document their learning through e-portfolios
- help their students both to learn from and inform others through digital tools
- help their students take advantage of the digital material already available or available through personal digital communication
- increase differentiation in their teaching
- experiment with a digitalized teaching session
- help colleagues in their digital experiments

2.3 Skill levels which could be achieved within the course

A framework against which to refer to qualifications according to competences and skill levels achieved was finalised by the EU at the end of 2007[8]. Assigning a level to the VITAE course makes it easier to understand how it fits into the various national education and training systems across Europe. The project consortium has confirmed that the VITAE course fits into Level 5 (table 2.1). This seems to fill a need as identified for example by our Lithuanian partner, BETI, who noted: 'Teachers can participate in a lot of teacher training courses and study activities. Mostly they are all for free. These courses are 2nd or 3rd level courses according to European Qualification Framework levels. We lack "higher" level courses.'

[8] Link to the framework: http://ec.europa.eu/education/lifelong-learning-policy/doc44_en.htm, 09.12.2008

The learning outcomes were derived from the new UNESCO ICT Competency Standards for Teachers[9] which provides an enabling framework for ICT competence development. Under the UNESCO framework there are three levels of competency spread across five action areas as shown in fig. 2.3. The VITAE approach is based on the adoption of these international standards and targets the central level of Knowledge Deepening.

[9] http://cst.unesco-ci.org/sites/projects/cst/The%20Standards/ICT-CST-Implementation%20Guidelines.pdf

An example of one of the VITAE learning outcomes is:

4. Documentation: I can author online spaces to document learning events and facilitate student use of this material afterwards (e-portfolio, screencasts, class blog/wiki).

Fig. 2.3 The UNESCO framework for ICT Competency Standards for teachers

POLICY & VISION	▶	TECHNOLOGY LITERACY	▶	KNOWLEDGE DEEPENING	▶	KNOWLEDGE CREATION
CURRICULUM & ASSESSMENT	▶	BASIC KNOWLEDGE	▶	KNOWLEDGE APPLICATION	▶	21ST CENTURY SKILLS
PEDAGOGY	▶	INTEGRATE TECHNOLOGY	▶	COMPLEX PROBLEM SOLVING	▶	SELF MANAGEMENT
ICT	▶	BASIC TOOLS	▶	COMPLEX TOOLS	▶	PERVASIVE TOOLS
ORGANISATION & ADMINISTRATION	▶	STANDARD CLASSROOM	▶	COLLABORATIVE GROUPS	▶	LEARNING ORGANISATIONS
TEACHER PROFESSIONAL DEVELOPMENT	▶	DIGITAL LITERACY	▶	MANAGE & GUIDE	▶	TEACHER AS MODEL TRAINER

Table 2.1 How the VITAE course matches Level 5 of the EQF

Level	Knowledge	Skills	Competence
The learning outcomes relevant to Level 4 are	factual and theoretical knowledge in broad contexts within a field of work or study	a range of cognitive and practical skills required to generate solutions to specific problems in a field of work or study	exercise self-management within the guidelines of work or study contexts that are usually predictable, but are subject to change supervise the routine work of others, taking some responsibility for the evaluation and improvement of work or study activities
The learning outcomes relevant to Level 5 are	comprehensive, specialised, factual and theoretical knowledge within a field of work or study and an awareness of the boundaries of that knowledge	a comprehensive range of cognitive and practical skills required to develop creative solutions to abstract problems	exercise management and supervision in contexts of work or study activities where there is unpredictable change, review and develop performance of self and others
The learning outcomes relevant to Level 6 are	advanced knowledge of a field of work or study, involving a critical understanding of theories and principles	advanced skills, demonstrating mastery and innovation, required to solve complex and unpredictable problems in a specialised field of work or study	manage complex technical or professional activities or projects, taking responsibility for decision making in unpredictable work or study contexts take responsibility for managing professional development of individuals and groups

This meets the pedagogy sub-goal at the Knowledge Deepening stage which states that at this level, teachers must be able to:

II.C.3. Design online materials that support students' deep understanding of key concepts and their application to real world problems.

In this way the 15 VITAE learning outcomes are based on an internationally recognised framework of reference but tailored to meet the needs of European institutions. The list of learning outcomes checklist shown below can then be used as the basis for the planning of an e-portfolio by participants.

2.4 Best practice

VITAE project members who ran the first VITAE pilot courses were asked a series of questions relating to their experiences in order for us to identify challenges, pitfalls and best practice examples for others who are interested in adopting (or adapting) the VITAE methodology. In the following sections we have a series of extracts from their reflections, which we hope will help to guide others in the development and delivery of the approach. (See also fig. 2.4).

2.4.1 Introduction of the course to an institution

Getting support from colleagues and senior management is vitally important when trying to embed new forms of teaching and learning in the institution. However, it can also be one of the hardest things to do. So how did our course pilot teams approach the issues? Here are some quotes from the mentors/moderators which highlight some of the challenges they faced when trying to embed VITAE at the institutional level. (For a further description of change management processes, refer to chapter 8 – Organisational Change).

Questions:
- Did your institution welcome the idea from the start?
- Which argumentation was most helpful to get colleagues and superiors on board?
- Did you follow a strategic plan in order to convince different players in the hierarchy?
- How did you have to compromise and adapt the course?
- What image does the course have in your institution now, after the first pilot runs?

The UK
'I suggested it to the manager of the Learning Technologies Centre, as part of their contribution to the University's staff development programme. It was fairly easy to convince the people in charge of the

Fig. 2.4 VITAE Learning outcomes

Learning outcomes

Evidence: **B** Basic requirement

E Potential extension

Overall: I can choose relevant resources using the VITAE approach for any planned learning activity including ICT tools where these are the most appropriate.

1. Information sources: I can help my students find and evaluate relevant information includ-ing pictures, maps, sound and video from ICT sources as well as traditional sources. (eg RSS, Wikipedia).   **B**

2. Information storage: I can help my students store information in digital form such as blogs, wikis, podcasts or portfolios (ie so it is accessible at home, on the move and to external experts/advisors).   **B**

3. Communication: I can help my students communicate synchronously and asynchronously through text, voice and video.   **B**

4. Documentation: I can author online spaces to document learning events and facilitate student use of this material afterwards (e-portfolio, screencasts, class blog/wiki).   **B**

5. Safe use: I can help my students use online applications safely (eg online identity, privacy, trustworthiness).   **B**

6. Group work: I can facilitate online group working, using methods such as complex instruction.   **E**

7. Learning: I can identify the learning outcomes expected from the use of specific ICT tools in a specific learning activity.   **B**

8. Assessment: I can identify how the learning outcomes of ICT related activities will contrib-ute to student assessment and use appropriate rubric tools to record this.   **E**

Professional development & mentoring

9. Planning: I have made a plan for my continuing professional development in the appropri-ate use of ICT in my teaching.   **B** **E**

11. Sharing: I have tried at least one way of sharing my ICT experience with colleagues either internally or externally.   **B**

12. Local context: I have identified the possibilities and limits of the use of interactive Internet tools in my institution.   **B**

13. Portfolio: I have started or added to an existing e-portfolio.   **E**

14. Evaluation: I have evaluated the outcomes of my amended teaching session and docu-mented this in my e-portfolio.   **E**

programme, as very little training on teaching and learning with Web 2.0 technologies was taking place. In the first pilot we carried out here at the university we had to compromise on the kind of platform we used as the main virtual learning space, where participants would congregate to interact was concerned. It was suggested that we use Blackboard – the institutional VLE, and that did not work to our advantage, nor to the participants´, where experience with a more Web 2.0 learning world is concerned. On the second pilot we went more Web 2.0 in our approach, although the VLE was still used as the initial hub for communication. The 3rd planned pilot has been designed on the basis of an open learning approach and will therefore only be based on Web 2.0 tools which are free to use and which will give participants a first-hand experience of what the read-write web really is about.

Despite what was stated above, the course was fairly well received. And in fact, the second pilot was designed and delivered upon request by the leaders of an online Masters programme in Occupational Therapy, who took part in the first edition of the course, and who thought it to be a good match for their entire team.'

Denmark
'We are a small institution. One problem was that our message was not clear and easy to get across. If you use the word Web 2.0 then people don't know what you mean. In the end three people took the course from our institution, two of them non-teachers. The point at which the management came on board was when we used the following diagram to describe the changed role of the teacher at which point the head of the institution sent a mail to all the teachers saying "This is important!". Note that this diagram (fig. 2.5) is more about the teacher's role rather than the mentoring role although mentoring is implicit in the illustration.'

Lithuania
'Yes, my institution welcomed this idea. We have the experience with similar courses, but it is very hard to summon persons to participate in courses. In course advertisements we need to NOT MENTION "mentoring", because teachers don't like to be "officially mentored".

In order to attract participants we put on some promotional/dissemination seminars, and uploaded information to our website. After the course, participants felt content and satisfied – they had gained new knowledge and new skills (particularly in technologies).'

2.4.2 How to recruit participants
Once the module had been designed, we had to recruit course participants. In some cases groups had been identified beforehand, but in most cases those who were running the courses needed to promote them widely in order to attract participation. Below are some observations from those who were active in recruiting people to the course.

Fig. 2.5 The learner-centric approach (the graphic which convinced one manager to recommend the VITAE approach to his staff)
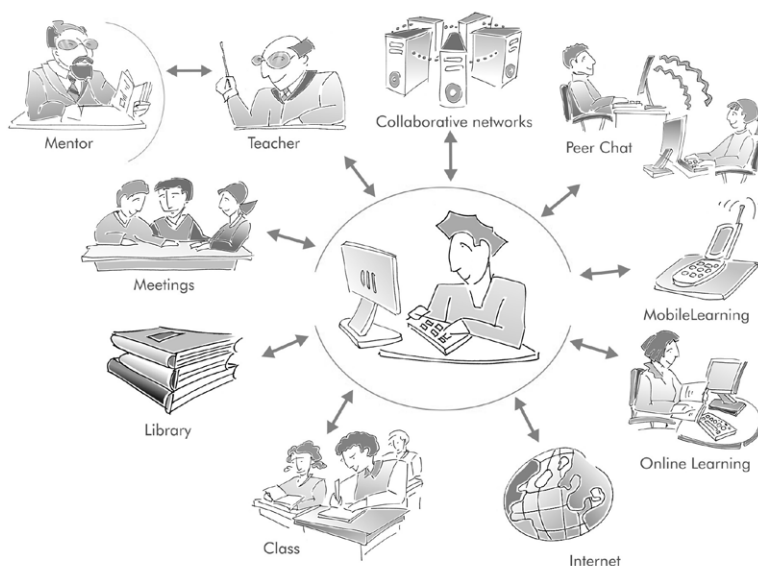
Questions:

- Did you have participants from the start or did you have to advertise the course and find potential participants?
- Which channels proved to be the most promising ones to reach out to your potential customers?
- Did you try out unconventional channels that you had not used for advertising face-to-face courses?
- What was the result – how many participants took part?
- Please give us a profile of the "typical" participant.

The UK
'The first course was advertised in the Staff Development Programme brochure and also in the University's website and 'message of the day'. In the first course, we had participants from different schools and areas. From creative writing, to health care and technologists, we had a varied group of people. All of them were academic or academic related staff. The courses focused on a mentoring approach and therefore were designed for a maximum of 12 people, so that moderators could provide personalized feedback and constant support. The channels used to advertise the course were the same used by the University to advertise any other kind of training sessions.'

Denmark

'Since we are a small institution we never thought that we would get sufficient participants from within the institution. Therefore we placed standard adverts in three teaching union magazines and this gave some but very little response. Again we thought that the use of expressions such as Web 2.0 may have been confusing for people. So we decided to try more modern methods and started using a Google Ad where you pay a nominal amount every time someone clicks on your advert. This was also not very successful. This was very directly measurable due to the reporting one gets from Google. The key here is to use the right key words to catch the target group's attention. Again 'Web 2.0' was not very productive in 2008.

Once these avenues were clearly not successful, we tried more face to face methods. Our institution belongs to part of a consortium of similar institutions in the region whose purpose is to collaborate and present a coherent portfolio of courses. One of our members of staff is a key player in this consortium and worked hard to present the courses to the rest of the consortium.

I also tried to disseminate details of the course through Web 2.0 means by talking about it on my blog or through comments on other people's blogs but I tend not to blog in Danish so my reach may have been limited in Denmark as a result and nobody else was doing this for the Danish courses.

Danish teachers have to timetable their professional development up to a year and a half in advance and this may have been one reason for the lack of response. In the end we had one group of 12 and one group of 6. The second group included one Norwegian participant who travelled especially to Denmark to participate. The typical participant was a teacher of vocational subjects (physics, Danish, French, IT, law for social workers) who had limited experience of some Web 2.0 applications in their teaching and was comfortable in basic ICT operations.'

Lithuania

'We advertised the course on our website, gave some talks in conferences, and presented the project nationally through the distance education association.

Take home message:

Personal networking works best for recruitment

The most promising "channel" in our situation was private talks with teachers. We phoned universities (Kaunas University of Technology, Vilnius College, Veterinary Academy, etc.), and asked could we participate in Faculty/Department seminars and if yes, gave a talk (15 minutes – half an hour) on this subject and answer questions.'

2.4.3 How to prevent and react to drop-outs

Another challenge for those who deliver online courses relates to completion rates, which (in many cases) are lower than courses which are delivered entirely face-to-face. Our moderators/mentors were asked to share their experiences and offer advice to others.

Questions:

- It is common that not all participants complete the distance element of a course. For those who dropped out, do you know what their specific reasons were (apart from the usual shortage of time)?
- Would you be able to give advice on how to reduce the number of drop-outs?
- What do you think is the strongest factor that keeps participants going in difficult situations?

The UK

'We did have some 'silent drop outs' – some of the participants just stopped participating in the learning spaces suggested for the workshop. There were some different reasons contributing to it:

1. Many people did not read the brochure carefully and thought the workshop was a traditional one, just based on classroom interaction and limited to three afternoon sessions
2. The University was going through a major restructuring and people were overloaded with work and also overwhelmed with the changes
3. Personal reasons which prevented them from spending the time they had planned to dedicate to the workshop.

We don't think there are recipes for success. It depends on many circumstances and they are usually related to the individual's current situation, learning culture, availability of time, etc. The fact is that individuals in any learning group/community react differently and engage at different levels. Some prefer to lurk, other see the benefits of engaging actively, others prefer to start their own learning journey at their own pace. That is why we now want to start an open approach where different levels of expertise and individuals from different institutions can come together, and thus co-create an environment where different styles and paces can co-exist. Above all, we aim at transforming a main virtual hub into a real learning environment that can offer and connect to different, diverse and distributed learning opportunities.'

Denmark

'We had one person drop out through pressure of work quite early on. There was one person who was ill and could not attend the second day of the face to face. Generally it was difficult to press the rest to display their results at the end of the course and whenever they were questioned

about progress they cited lack of time as the reason. Even the stick of an end of course conference/presentation failed to motivate participants to come with an end product.

I think the main barrier was initial recruitment. I don't think that the blended model is an obstacle. In fact I think that here in Denmark we could have done a much better job of explaining that it was indeed a blended course. Participants tended to be focused on the two face to face days at the expense of down-playing the online parts. For some it came as a nasty shock that we expected them to do preparation before meeting so that we had a common experience to start from.'

Lithuania

'32 participants started the training. 18 participants finished the course. Some participants did not finish the course because of personal reasons – December is the last month of the Autumn Semester and teachers are very busy in their educational institutions.

Mostly it was because the course ended at the same time as the students' session started (period of exams, so teachers needed to do additional work during that time). Some of the course participants lacked technological skills and it was hard for them to follow the course materials; others lacked motivation for such type of studies.'

2.4.4 The role of technology in the course

The mentors/course tutors had a wide variety of technologies at their disposal. While some used the Moodle as planned in the original template, others needed to use their own institution's VLE (virtual learning environment) while others tended towards a PLE (personal learning environment) approach, where participants used a variety of free online tools.

Questions:
- Which digital applications would you recommend?
- What kinds of web-based communication technology have you used for the course (e.g. blogs, wikis, forums, Twitter)?
- If they were not included in the English template – what made you choose those?
- Which of the digital applications you used supported the learning process best – please give two concrete examples?
- Were there any applications which did not help the learning but complicated the process?

The UK

'Some applications were chosen to engage the participants. However, what we were more interested in was in the concepts and practices behind such tools. Therefore, we introduced the concepts and supported those with examples of innovative and concrete practices before they

---

Take home message:

All aspects of the course need to be well described so that participants are not caught out by unanticipated requirements. The VITAE participant profile was developed to meet this need.

chose which tool/service to use. So for instance, where bookmarking is concerned, we explained what it was, how it was being used, and then provided del.icio.us[10] and Diigo[11] as recommended tools. Participants were always given leeway to explore and choose what they thought would suit their own practice best. Of course, such personal choices were also influenced by their peers as people shared what they were using and gave examples of such practices.

The different areas of focus of the workshop were:
- Discussion fora in general (experience by practicing and engaging in discussions focusing on netiquette and Web 2.0 in general)
- Real time communication (focusing on Skype[12] and virtual classrooms)
- Asynchronous Communication and reflection (Blogs)
- Personal and collective learning (Social Bookmarking, Social Network
- Sites, RSS feeds, Wikis, Photosharing, customizable/sharable Ajax pages)'

Denmark
'The course was based in Moodle (as per the template) and participants were introduced to the following:

- Poll - Survey Monkey
- Blog - posterous
- Wiki – pbworks
- Personal aggregator page – Netvibes
- Podcast – posterous

The applications which participants took to most were the wiki and the personal aggregator page. The wiki was seen as relatively simple and offering opportunities for student collaborative work. For example one participant set up a wiki to host intercultural information about various countries which her students would produce. PowerPoint was also popular after participants had been shown how to make games such as 'Who wants to be a Millionaire?' or Jeopardy using its multimedia and hyperlinking possibilities – not exactly Web 2.0!

I would also nominate Posterous which is an incredibly easy way of uploading multimedia content simply by sending an email to post@posterous.com The application accepts, pictures, audio and video which you attach to your email. The title of the blog post is the title of your email and the text is whatever you put in the body of your email. More complicated formatting can be undertaken by going into the editing interface if desired.

What caused problems was the recording of audio materials on mobile phones because the file formats were all different and it took too long to find out what the different formats were and try to convert them to a more standard mp3. Using Audacity to edit audio files is also a bit overwhelming because of the need to also download and install the lame encoder. Audio and video are therefore probably over-complicated where they are not the main focus of the course. Although there are many learning possibilities with images in general and Flickr in particular with its

group facility, labelling, tagging, description, commenting and searching, working with images was not seen as relevant to our vocational teachers so we did not introduce Flickr.'

Lithuania
'The VITAE course was piloted using a blended learning method. We used the Moodle virtual environment, forums in WebCT, blogs, NING. Participants were asked to attend an introductory lecture (the course structure was presented, participants presented their needs and wishes etc). Some lectures were online; the closing lecture was face to face.

We had an introduction session via videoconference, using the videoconference support tool VIPS (the tool used by universities all over Lithuania). The main idea of the first online discussion was – "My personal introduction, our values and beliefs about teaching & learning".

The testing of the social networking tool NING was our first assignment and I am happy and quite satisfied that it went well. Some participants were very active and wrote 5-6 messages – long contemplations on a given theme. Others were not so active, they only tested the tool. My goal as the teacher was to show the participants a new tool for social communication, to start discussions, and to show my students how to use the tool for their lectures. I think I reached my goal and my learners are now motivated to use NING for their personal work.

26 members participated in the NING group. 23 of them were VITAE course participants, 2 of them were "additional" persons interested in the topic. I initiated discussion about building the information society by presenting an interesting paper from a Lithuanian scientist with four scenarios about the future.

Now the NING session is officially closed, although participants are still free to use the space if they wish.'

Take home message:

Video and audio tools need more preparation for use than text-based tools such as blogs and wikis where standards are in place which makes their use extremely simple.

2.4.5 How to make use of mentors
Mentoring as an approach is very new to many people, and stands apart from traditional forms of teaching and learning due to its conversational nature. While being seen by some as an obvious way to teach and learn online (especially with regards lifelong learning), for others the concept of mentoring is a little strange as it shifts the power balance away from the tutor and towards the learner – this is why mentoring is 'learner-centred'. (For a fuller description see Chapter 7 – Community-based mentoring).

Questions:
• Which specific areas of your pilot course were accompanied by mentoring?
• Which percentage of the participants took part in the mentoring?

- At what stage of the course did your participants appreciate the support most?
- Did you organise this with special tools such as the "Mentor booking system"?
- What were the most obvious benefits of this feature of the course?

The UK

'All of the areas were accompanied by mentoring. The focus was always more on the mentoring and reflection part, than on the tools themselves. The more we think about it, the more convinced we are this is the way. People might need some help with the tools, but it is mainly a deeper understanding of how one can use them and how one can engage students in an effective way. It is important to trigger educators' curiosity and active initiative on using ICT as part of their own learning, teaching and also research. Hence, our focus is especially on the learning conversations and how we can assist individuals and the community with innovative practices, examples and learning opportunities through shared conversations focusing on real experiences and practice. The support was there from the very beginning and that was something that we quite got praised for. In fact, that was one of the reasons why a second edition of the workshop was requested by the Occupational Therapy team leaders. They not only wanted to introduce their team to the approach, they also asked them to pay close attention to how the moderation was conducted, and experienced the importance of feedback and ongoing support as students, before their staff assume the role of moderators themselves. The mentoring came from a 'humanware' approach, i.e., lots of caring and personalized support based on people's needs and interventions. The moderator/mentor reacted to participants' actions, questions and demands for feedback and help. With that we tried to establish a trustworthy environment, in which people felt confident to share and pose their questions.'

Denmark

'The mentoring aspect was under-played as participants became concerned with the pedagogical application of the tools rather than passing them on. In fact a frequent reaction was 'I have to be completely confident with this before I can pass it on to others.' We did consider knowledge-sharing within their home institution and some participants made detailed plans for this on their return. But this was not a one-to-one relationship as it would have been in the mentoring situation. However it is a step in the right direction since teachers still tend to operate very independently behind closed doors in Denmark. Therefore we did not get as far as using the mentor booking system.'

Lithuania

'Mentoring was done in advance (calendars, study plans, etc.) as well as during the course where they were motivated all the time (mostly in discussion forums) through feedback from course tutor and colleagues'.

Take home message:

Mentoring must be completely embedded into the training.

2.4.6 Advice to future course moderators

Learning from experience is one of the core features of the VITAE approach. While this whole chapter has been designed as a 'how to' (or even 'how NOT to') guide for those who want to try the VITAE approach to training teachers in the use of Web 2.0, here are a couple of final pieces of advice for future course tutors/mentors.

Questions:
- What could be done more efficiently the next time round?
- In which areas would you change the contents of your course?
- Where would you change the organisation of the course?
- Any psychological approach future course moderators could use to motivate the participants?

The UK
'First of all, we would not address it as a course, but rather as an environment where people come together and can mentor each other to achieve deeper understanding about the reality they are exploring, and also develop related skills that will help educators to improve and innovate their practice.

As for 'psychological approach' I would suggest the first weeks should be devoted to creating bonds and developing a culture of sharing that fosters a feeling of trust among people. This would be fundamentally based on social and fun activities that would bring some confidence to the user. Furthermore, the focus of the VITAE approach should be on the mentoring and not on the tools, and therefore the establishment of a conversational environment is essential. It's important that the mentors take time to listen to the participants' questions and needs and adapt their response to requirements of their audience.'

Denmark
'I have an untried suggestion. Having run two pilots, I am beginning to wonder whether the emphasis should not be on building knowledge-sharing approaches back in the home institution by using the Web 2.0 tools in the VITAE course. The end result may or may not include mentoring as a way of knowledge-sharing and I would hope that participants would be intelligent enough to realise that if they are setting up a wiki to share knowledge with their colleagues then setting up a wiki might also work in the classroom.'

Take home message:

Just offering a course is insufficient. The objective is to use the course to start the process of knowledge sharing and to ensure that this continues once the official training is over – ultimately, to encourage practical ways of implementing lifelong learning in a professional context.

Conclusions/summary

The original concept of the project was to offer separate courses in mentoring and ICT integration but we rapidly came to the conclusion that the two should be integrated and the feedback from the pilots indicates that an even stronger emphasis on the mentor training (even if it is 'hidden') would be beneficial in promoting those knowledge-sharing processes that are so critical to embedding ICT in everyday practice across an institution. The VITAE approach is based on external standards such as the new European Qualifications Framework and the UNESCO ICT Competency Standards for Teachers. It is framed in terms of learning outcomes as suggested under the Bologna and Copenhagen processes rather than objectives. It is therefore based on a solid set of externally recommended criteria.

In brief, the VITAE approach includes the following elements:

1. The 15 learning outcomes are met.

2. The participants in the course have a mentor to help them through the implementation phase of their teaching ideas.

3. Participants use the VITAE learning activity checklist as a guide to designing their activities, especially the sections on including higher order thinking skills, setting engaging tasks and implementing differentiation.

A VITAE course does NOT have to

1. Include a prescribed set of tools such as podcasting, blogging or wikis.

2. Use the exact tasks included in the course template.

This places the learning activity checklist in a central position, though its role is more as a discussion/planning starting point than as an administrative task.

The intercultural learning journey was one way of implementing the VITAE approach but there are likely to be several other equally valid ways of facilitating the learning outcomes. More critical is to ensure that the VITAE approach promotes the following:

• Dialogue - between teachers, between teachers and learners, between teachers and management
• Empowerment - responsibility for own learning practiced both by teachers and students
• Collaboration - between teachers, teachers and learners and between learners
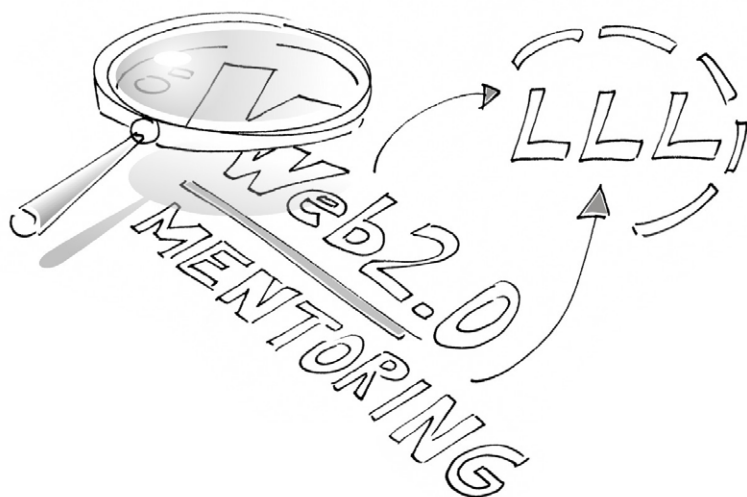
Chapter 3

Exploring Web 2.0 and Mentoring as Tools for Lifelong Learning

Experience Report from a blended-learning business simulation with young managers

Dr Laurent Borgmann

Introduction

How can teachers and trainers of young professionals include Web 2.0 applications and mentoring in their regular teaching in order to provide tools for lifelong learning - be it individual, face-to-face, blended, or online? This article provides an insight into a concrete blended-learning pilot course *Europe 2.0* which follows the VITAE model developed in a European-funded project. The course introduced young professionals to the idea of planning and organizing their own lifelong learning processes with the help of Web 2.0 applications and mentoring. The evaluation of the approach and the description of concrete activities are meant to encourage other teachers to try out new didactic techniques and adapt them to their own needs.

3.1 Vitae model

The concept for the course *Europe 2.0* was based on the VITAE model which was developed in the context of the European-funded Leonardo project with input from educators in England, Germany, Denmark, Norway, and Lithuania (www.vitae-project.eu). The aim was to transfer innovation in vocational training and education by developing model courses that could inspire fellow-educators to include new media in their regular teaching. Following the motto 'It's all about learning - the rest is technology' the focus was not so much technical, concentrating on 'bits & bytes' but rather on innovative didactics that promote active and autonomous learning.

3.2 Pilot-course 'Europe 2.0 – a lifelong learning project'

The VITAE project team decided to run an additional pilot that would allow us to explore the transferability of the VITAE approach to a different target group, emphasising specific aspects of Web 2.0 and mentoring. The idea was to explore the potential of Web 2.0 tools for organizing and structuring a project or an event. At the same time the task was to test the potential of peer-mentoring in order to identify diverse skills within the learning group and facilitate skills transfer amongst participants. This course was conceived and implemented at RheinAhrCampus of the University of Applied Sciences Koblenz, Germany and was embedded into the Master Study course Business Administration in the module Advanced International Studies. The course concept was meant to keep as closely as possible to the original VITAE model and one of the reasons for adding another pilot-course was to find out how quickly the model can be adapted to new surroundings and what the impact would be on an existing curriculum. Within one week

the concept was adapted in order to tailor it to the new target group (before: teachers; new: young managers) and the existing curriculum was modified in the format of a course concept.

3.2.1 'Spiel-Idea'

Running up to the elections of the European Parliament in June 2009 the project was aimed at getting young managers interested and in contact with the European Union (EU) and its institutions. Many of us citizens in Europe feel and behave like 'victims' – at the receiving end of the 'European Machinery'. Often Germans only hear about European decisions when they are scandalized because they sound absurdly bureaucratic or directly go against the national interests. We do not often hear about useful innovations because what the media report about is usually that one piece of legislation that clashes with our national laws or our national culture and thinking. The rules and regulations are made in seemingly distant places such as Brussels and Strasbourg and we do not know the makers of these laws, and this even includes our own national representatives. The result is often that what has worked well in our country for centuries is now either banned or overly regulated under the pretext of harmonization between the member states. The more we reject this process, the less we are interested and involved. The less we are involved the more room we offer for legislation that does not reflect our point of view. How can we escape this spiral of 'victimization'? How can we take control and actively participate in the construction of Europe? How can we point those who are prepared to take a more active role in the right direction?

The idea was to use Web 2.0 tools and peer-mentoring as tools for regaining control over the European process. First in our immediate surroundings, then on a larger level. This was planned in a three-step-process:

- The first target was to convince the young managers that it is important to vote for Europe and to become active European citizens
- The second target was to familiarize these potential multipliers with digital social media (e.g. Facebook, podcasts, Twitter, wikis)
- The third target was to try out the social media in practice by mentoring others to become digital European citizens, too

By the end of the project mentors and mentees were supposed to have a clearer picture about what Europe can do for them and what they can do for Europe and have tried out diverse digital media which can help initiate change and support managerial practice. By extending their digital skills and mentoring abilities the promoters were expected to extend their personal learning environment and lay the foundation for their personal lifelong learning.

3.2.2 Mission

On the course *Europe 2.0* we wanted to empower young potential multipliers of the European Idea by developing their digital skills to reach out and mentor other young professionals to become active European citizens.

The turn-out for the last European elections in Germany had been poor and a recent internal election for the student parliament at RheinAhrCampus had been dramatically poor. As a consequence the challenge to raise the level of political awareness on campus was huge, but at the same time the chances of having an impact were equally high as there was so much room for improvement. The idea was to use Web 2.0 tools and mentoring for initiating change. If change could be initiated in the project the participants felt these tools should be further explored as management tools for their work in companies and institutions. The participants started with a brainstorming session of what attitudes needed to be worked upon within our own project group in order to achieve the best results.

3.2.3 Target group

The target group for this pilot-course consisted of young post-graduate multipliers on a master-level training course in Advanced International Studies. Their backgrounds were varied, with degrees in History, Languages, Media Studies, Arts and Politics. In fact, the diversity resembled that of a typical group of lower management staff in an ordinary company or institution. However, it must be said that this particular group got more and more motivated during the course and displayed levels of application and enthusiasm which are rare in companies and projects. So the level of activity and the quality and quantity of output was very unusually high. As it was an isolated trial run it is not clear whether this was due to an unusual selection of participants or whether the concept and the event-related aim orientation caused this drive and hype. I can only say that I had never had a short project before that had produced as many valuable outputs.

When the tasks of the project had been defined, participants organised themselves like in a real company, built teams and created and managed their own clearly-defined promotional or awareness-raising projects about active European citizenship and lifelong learning.

They formulated the questions:

- What can I as a European citizen actively contribute to the construction of our future Europe? How can I participate in decisions?

- What is my role as a multiplier and how can mentoring skills facilitate this? How can I use these skills in my future managerial life?
- How can digital social media be used for promoting the European Idea?
- What social tools can be instrumental when trying to mobilise citizens for a good cause or for participating in an event?
- How can the skills needed in this process be used as a spring-board for my own lifelong learning? How do I plan my own personal learning environment?

3.2.4 Metaphor

On the course we needed to plan, manage, and implement a dramatic turn-around of political attitude in a very short time. Most of the participants at the beginning of the course would perhaps not have voted for the European parliament themselves – let alone gone out to convince others to vote and become active European citizens. On a previous excursion with students from four different countries I had tried out a management trick to coach students out of a difficult situation marked by lack of enthusiasm.

I had used a boat-metaphor that would allow everybody to reflect on their participation in the project and invited and encouraged them to imagine themselves on a large boat. What position did they hold? Are you the captain, the person in the look-out who shouts when they see an ice-berg, a map-reader that advises the captain? Or are you working in the kitchen of the boat, making sure that the others can concentrate on sailing and need not worry about other things?

This time of reflection using the metaphor of a boat journey and reflections on the functions of the different members of crew seemed very appropriate for the pilot-course, too. So, this time, for the course *Europe 2.0*, the metaphor was not used as a management tool to solve a problem but it was chosen as the guiding metaphor for the whole pilot-course.

Before even explaining the technicalities of the course, I asked the participants to 'think of your learning as a journey'. In order to show them that on this learning journey THEY had to provide the content and should not rely on me as the teacher for input I handed out a standard empty sheet of white paper and called it a 'hand-out for today's class'. After some minutes of calculated confusion, I asked them to fold their personal boat from this paper and put their names on it and share with the others where this boat was going.

In this spirit we embarked on a learning journey in order to discover a new continent called 'Europe 2.0' which was to be our destination. None of us, including me, the lecturer, had been to this continent before so we turned into explorers and started to make intelligent assumptions about this place we were going to discover. What would be the challenges we would encounter? What would the natives be like? What treasures would we be able to take home with us from this journey? We divided the undiscovered continent into three thematic areas or sub-continents:

- 'political Europe',
- 'mentor-land' and
- 'Web 2.0'.

As 'digital immigrants' to the new continent we planned to get in touch with the 'digital natives' of 'Europe 2.0' and analyse which aspects of their lives we can learn from and make them part of our regular working lives. We asked ourselves which skills of the natives could help us turn into more successful managers and 'influencers'. In a second step we tried to implement these new skills for initiating concrete and measureable change in the preparation of the European election 09.

3.2.5 Virtual Company

In the first meeting with the participants it was decided that the project work would be organised as if we were employees in a company or organisation. We decided to choose the format of a consulting agency paid by taxpayers' money in order to promote the European idea and in particular make young professionals take part in the European elections in June 2009. Our company was divided into three departments, 'Web 2.0', 'Europe', and 'Lifelong Learning' with a head of department in each. Participants applied for jobs in the three departments. Upper management consisted of the 'Three Cs' (CEO, Controller, and Coordinator) with an assistant (the lecturer of the course). The structure of the organisational chart (fig. 3.1) and the Three Cs were suggested by the participants and voted for democratically. Almost all of these young professionals had personal experiences to contribute to the foundation of this company even if they had never actively shaped such a process but only been an employee in similar structures.

- The department *Europe* had the task to find out as much as necessary about the mechanics of Europe and the European election and share the relevant information with the whole company. Some of the employees took part in an accompanying (real-world) study trip to Brussels, reported about it and brought back give-aways for an exhibition stand at the annual International Fair at RheinAhrCampus.

- The *Web 2.0* Team found out how the new media, in particular the 'social media' could be used in order to promote the European election. For their viral marketing campaign they created accounts and groups in StudiVZ, facebook, Twitter, Xing, and even constructed a Wikipedia entry which was planned as an under-cover marketing tool for the project.

- The department for *Lifelong Learning* coordinated the increase of hard and soft skills and the transfer of skills between the different departments. They organised a number of short coaching and mentoring sessions for small groups (e.g. only the Three Cs for a leadership training) or all staff.
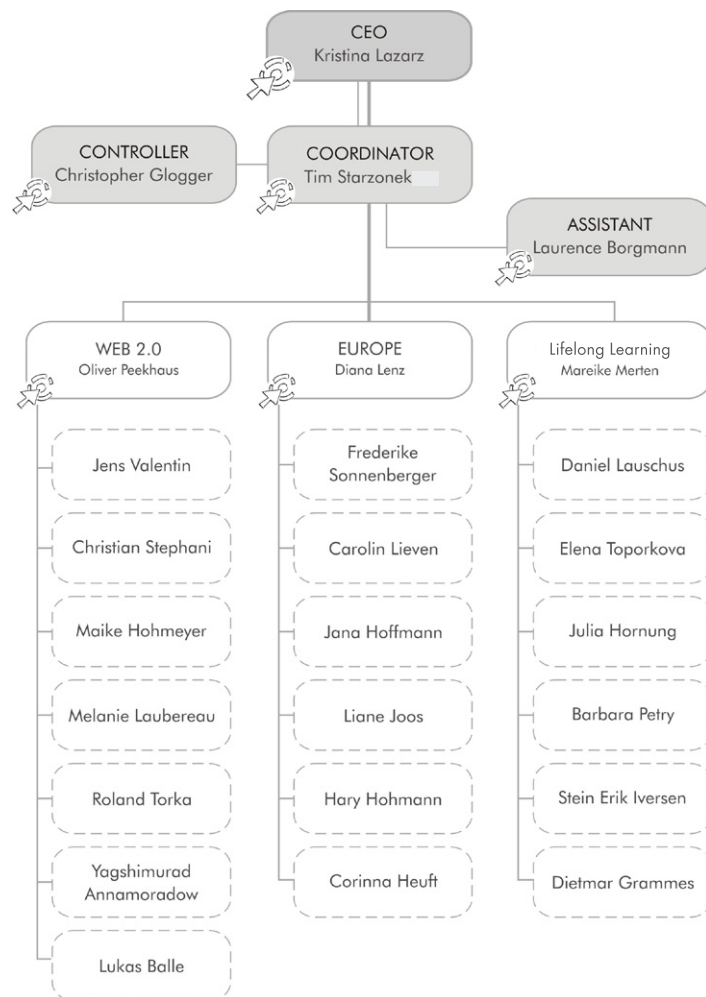

Fig. 3.1 – Organisational structure

- Upper management (CEO, Co-ordinator, Controller) had the task to coordinate all activities, make sure that the outcomes were in line with the mission of the company and delivered in time and that the output was measurable.

In the daily routine of the company it became evident that the tasks often needed to be dealt with by inter-departmental work groups because the solutions required skills from the different departments. As a consequence there was a weekly 'all staff' meeting plus at least one weekly departmental meeting plus meetings with upper management or between the departments. All meetings were handled like in the real world with agendas and minutes which were documented for everybody on a managerial company platform. Heads of departments and upper management had the writing rights for this digital platform where ordinary employees only had the rights to contribute to forums or to wikis.
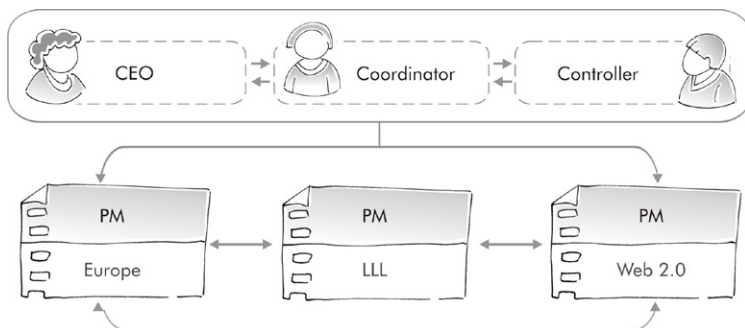
3.2.6 Modules from the VITAE template
The entire teaching-project only took four weeks and consisted of only four 'all staff' face-to-face meetings accompanied by many shorter face-to-face and online mentoring sessions. The milestones or modules of the 'learning journey' included:

- Digital natives and digital immigrants – an intercultural analysis of digital behaviour
- How they do things in Digi-Land – defining aims and learning outcomes
- Keeping a diary throughout the Journey – competence assessment and portfolio
- Meeting the digital natives and trying their dishes and customs – exploring wikis, Xing, podcasts, Twitter & Co and mentoring others in their use
- Taking things home – adopting social media for strategic management and lifelong learning
- Telling the folks back home – putting into practice the action plan – creating an event during the International Fair

It turned out that the original modules of the VITAE template could easily be adapted and transferred from the target group 'teachers' to the new target group 'managers'. This worked so well that as the observer I sometimes had the impression that the VITAE project had by coincidence found its real target group – young managers. The master students immediately realised how the main components of the course, Web 2.0 and mentoring could complement their future managerial work and give them a strategic advantage over other managers who have not had the chance to try out these tools for promoting ideas and inducing change. During their internships they had seen very highly qualified managers who did not share their expertise or benefit from that of their colleagues and so it was immediately plausible that a well structured peer-mentoring system between managers will inevitably increase productivity and motivation. On the background of their experience of planning events (e.g. some had experience in sports management) it quickly became obvious that the social media which now proved helpful to promote the European election would be equally useful in a commercial planning of an event. There were very rewarding situations in classes and meetings where participants suddenly realised that if they had known and used these tools earlier it would have helped them achieve better results in previous projects.

3.2.7 Accompanying Measures
a. From virtual to real – excursion to Brussels (29 April 2009)
Some participants of the course had the opportunity to take part in a short study trip to the European Parliament in Brussels. This real life excursion nicely complemented the online research that the 'Europe'-Team had conducted and offered the opportunity to get inside views and collect more information for planning the final event on campus.

b. Mentoring @ International Week at RheinAhrCampus (4 – 8 May 2009)
The project was registered as one of the featured projects of the Land Rheinland-Pfalz for the 'European Week'. Project participants turned into multipliers of the European Idea and mentored their fellow-students to vote in the European Elections on June 7th 2009.

Presentations by course participants included:
- Presentation of the mini-projects of the departments Web 2.0, Europe, and Lifelong Learning
- Concept 'Europe 2.0' – how to use New Media for Promoting Active Citizenship.
- Promotion desk for the election: flyers and posters, information about the European Union, quiz
- Consultation and mentoring desk 'Find your voice in Europe!'
- Poster activity: 'Einsatz für Europa – Ein Satz für Europa!' (Double meaning in German: 'Intiative for Europe – A Sentence for Europe')
- European success stories (e.g. How Leonardo changed my Career)

In the final feedback the students stressed that the mix between a simulation (e.g. the agency that does not really exist) with real events (e.g. the European election) and activities (e.g. the excursion to Brussels) was rather confusing at the beginning of the course but then turned out to be one of the strongest motivating factors. This 'simu-realism' gave participants the opportunity to try out the new tools in the real world and immediately see the effects of their use.

3.2.8 Learning outcomes

The learning outcomes of the course were carefully planned and based on the VITAE template. Between the head of department of the Lifelong Learning Team, the employees and their 'Assistant' (the course lecturer) a learning plan was conceived for the whole virtual company. Within the simulation this was plausible because the Lifelong Learning Team was introduced as a kind of Human Resources Department of that company. The main ideas for the criteria were taken from the VITAE model but carefully adapted to the concept, organisation, and desired outcomes of the Europe 2.0 project. The Lifelong Learning Team organised mentoring sessions with every employee of the virtual company in order to explain the underlying ideas behind the desired learning outcomes.

The Lifelong Learning Team supervised the progress from week to week and made sure that all goals and sub-goals which had to be formulated in writing were always S.M.A.R.T. For this purpose they offered mentoring sessions for small groups of employees

S pecific
M easurable
A chievable
R ealistic
T imely

After several peer-mentoring sessions with the Lifelong Learning Team everybody was encouraged to book a final mentoring session with the lecturer to present their portfolio containing all their work and their products and also to explain their accomplishments by taking the lecturer through their personal learning outcome sheet. They had been encouraged to mark the status of the particular items with symbols in traffic-light colours (see table on following page).

Bernd's[1] Learning Outcomes
for the Europe 2.0 project
Status: End of project

✗	not yet addressed
+	partly addressed but not fully achieved
✓	fully achieved and under control

Portfolio: I have kept a learning portfolio for the project Europe 2.0 and have filled it with relevant input every week. It will be ready to present by 15 May. I have ideas how to produce my own learning portfolio for similar projects in the future.   ✓

ICT tools: I have tried out at least one new Web 2.0 application (e.g. wikis, blogs) and can use it safely and strategically. I can explain how this tool improves collaborative work.   ✓

Internal Mentoring: I have identified one or more colleagues for whom I can be a mentor. Together we have identified a specific professional development need and I have started a concrete mentoring relationship with these colleagues and follow their progress   ✓

External mentoring: I have mentored at least two persons outside the project in order to influence their habits (e.g. make them vote in July, adopt a new Web 2.0 tool, and invest time in their lifelong learning).   +

Internal visibility: By the end of the course I have made one or more specific idea contributions to the project and have made sure that the others connect my face with this aspect of the project. For this mini-project I took over complete responsibility.   ✓

External visibility: I have taken over responsibility for one or more interfaces with people outside the project and have made sure that external observers will connect my name with the project (e.g. host of a platform, editor of a leaflet).   ✗

Group work: I can facilitate face-to-face and online group working sessions, using the right tools (e.g. mind-mapping, online conferencing, newsgroups)   +

Presentation: I can select the right ICT-tools for my presentations. I can point to one example where I presented in the meeting and can explain why I used the specific tools.   ✓

Planning: I have made a plan for my continuing professional development in the appropriate use of ICT on this project and can explain how I will use this tool in my future career.   +

Strategy: I have learned and tried out at least one new strategy to be more successful in meetings.   ✓

Controlling: I have evaluated the outcomes of one or more management/promotion activities and documented them in my own my portfolio.   ✗

Digital ownership: I have installed and hosted a communication platform (e.g. studiVZ group; wiki in the moodle, etc.) informed people about it and maintained it so that it always looked presentable. It was clear to the others that I was the person responsible for this.   ✗

Personal development: I have actively looked for a mentor who has helped me improve one or more skills that were needed for the project and can explain how I developed new skills.   ✓

Leadership: I have volunteered to take on a leading position in the company and in this capacity have moderated one or more parts of meetings (documented in agenda and minutes).   +

Safe use of ICT: I have learned and put into practice one or more aspects of using online applications safely (e.g. online identity, privacy, trustworthiness, selection of royalty-free pictures and music)   ✓

---

[1] Bernd is the name given to an anonymised student

3.2.9 Methodology

The training course was meant to demonstrate the transition from a teacher-centric to a learner-centric learning environment. Most of the time the learners had to organise themselves and were responsible for their own mini-projects. They had to find their own timing, formulated their aims, milestones, and expected outcomes and tried out new forms of peer-mentoring and collaborative learning. The teacher took the role of a facilitator who organises and manages the learning opportunities but hands over the full ownership of the mini-projects to the participants. Concerning the use of the new media the training course practiced what it preached and facilitated communication and stored all resources digit-ally in a learning and management platform 'Moodle' – thus introducing social media also for the management of the course. Preference was given to low-threshold applications which were quickly implemented for initiating change and promoting campaigns and events. Choosing and evaluating the appropriateness of digital applications for solving specific communicative tasks was as important as practising mentoring skills for sharing our ideas and promoting change.

3.3 Lessons learned

All in all it is a little difficult to be critical about this course at all because it was clearly one of the liveliest and most productive classes that I have ever taught. As I had changed my position of lecturer at the front with that of the assistant of the co-ordinator at the back, I had the luxury of observing a lot of what was going on in the meetings and took notes in order to help upper management when they asked for mentoring ses-sions. The course evaluation results seemed very positive.

3.3.1 Opportunities

Most participants appreciated

- the abundance of new skills that they had acquired on the course (creating corporate identity, company missions, using Photoshop, wikis, creative commons, etc.) or were introduced to and want to follow up.
- the fact that theory was immediately put into practice during the production phases and was always tested against reality.
- the flexibility of the learning platform Moodle which even allowed them to miss classes and still have an impact on the project through forum postings or entries to wikis from home. This encouraged quieter students to contribute in their own time.
- the experience of being able to get involved and have a measurable impact in such a short time by using the right tools.
- the team-work and how the mutual mentoring had enhanced the group identity. The course had turned into a group of friends.

- the reality of the project which allowed participants to bring in experience gained during their internships.
- the perspective of learning new skills which will be helpful beyond the end of the course introduced by the lifelong learning exercises and LLL handbook.
- the proximity to real-life work situations and the opportunity to face realistic professional challenges in a sheltered environment.

3.3.2 Challenges

Some participants complained about

- competitiveness between students and departments which was felt to be too dominant (in fact by many!). This effect sometimes got in the way of good team-work as some participants tried to be responsible only for those parts of the package that were most 'visible'. One student even stated that he/she would have preferred a communal grade for the different departments (Web 2.0; Europe; LLL).

This was a management mistake which I made halfway through the course. Our learning objectives 5 and 6 were about 'internal and external visibility' and were not advancing enough. In my explanation I encouraged participants to start stressing ownership of products in the meetings and on the products themselves (by including their names on flyers, hand-books, etc.). While the idea that participants learn to make their products visible may be important for their careers, this learning goal must be better explained so as to avoid unfruitful competition and envy.

- the ambiguity at the beginning of the course. It took participants some time to realize that really all decisions should actually be made by the participants themselves which is unusual for a university course.

I was, in fact, prepared for this as I have observed this effect in other simulations where the students take the decisions from the start. It often happens that these decisions do not run smoothly at the beginning be-cause the majority of participants have never held this responsibility and would prefer the lecturer to take a more active role. Maybe this planned challenge could be explained on a meta-level (in German) before the course starts. It really helps if there are at least two or three participants who are used to this style.

- the workload was too high for a 2 ECTS-credit course. It took away energy and working time from other courses.

This is absolutely true and was even partly connected to the complaint about too much competition. The virtual company developed such a drive and energy that everybody was doing too much in the end. Some people even complained that just reading internal messages already took up too

much time in their day. One person suggested that participants should have created a dedicated email account only for this course! While I was also astonished by the level of activity I did not want to get in 'as the lecturer' and ask participants to slow down. At one point I was even worried that my colleagues might complain to me as I saw participants skipping other classes in order to finish a meeting for Europe 2.0. Maybe this could be communicated through the filter of the 'bosses' of the virtual company. However, from a certain point on every employee just wanted to get their posters, handbooks, or their YouTube video 100% right which was very gratifying.
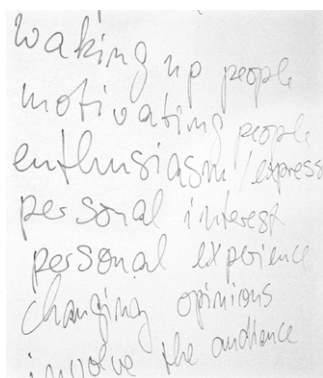
3.4 Student experience

Participant's experience report

One of the participants of the course, Tim Starzonek, volunteered to write an experience report about this pilot-run from the students' perspective.

'To be honest, when I read the concept of the course I was a bit confused. A lifelong learning project? Using "mentoring"? Exploring the power of Web 2.0 and mentoring for creating an event? "Europe 2.0"? Will the teacher stand in front of the class and tell something about voting, political parties and the European parliament? Although there was something said about a "game-idea" nobody knew what would happen on this short course. Also the course Advanced International Studies is an English course, why should we simulate something? We wanted to improve our English. But all the mysterious minds and our confusion came to an end, when our teacher told us the concept of the course. It won't be only a simulation, it will be real. It won't be an English course; it will be a real experience for us! And we will change the world! And we did! At least a little.

'So what happened? Our clear goal was to motivate and mentor the students of our university to vote in the European elections on 11th June. We wanted to advertise the election by using Web 2.0 tools, like social communities (Twitter, Facebook), videos (YouTube) etc. We also wanted to present our work and give more motivation to the students going to vote at the International Fair. How can we reach these goals? How would it work in real life? Right, we decided to found a consultant agency. The agency consists of three departments (Web 2.0, Europe, and Life Long Learning) and three bosses, the CEO, the Controller and the Coordinator. And where is the teacher? He was also integrated in the agency but only as the personal assistant to the Coordinator and sat at the end of the room, not at the front. But as you see, the course did the project and made the products, not the teacher. My job was the part of the Coordinator. I applied and was voted for by the other students. So I delegated the heads of the departments, connected their work and supervised their activities that we reached our goal the best way. Every department had his own field. The Web 2.0 group was responsible for installing and creating the Web 2.0 applications and moderating them, the group Europe was in

waking up people
motivating people
enthusiasm / express
personal interest
personal experience
changing opinions
involve the audience

charge of giving important information to the Web 2.0 group and also organizing the presentation at the International Fair. But the most interesting job for our personal development and responsible for completely new experiences for every one of us was the Life Long Learning Group (LLL). Inside our agency, it was some kind of Human Resource and Development. How did they do it? If there was a problem in e.g. creating accounts on social communities, working with programs like Photoshop, cutting videos or leading a department, they searched for one expert inside our agency, who coaches three or five interested people in his competence and start a mentoring group. So from one expert developed five experts. Through this process, the members of the agency learned to mentor other people in things they are experts in – not just ICT skills like "creative commons" but also soft skills like "improving my attitude" or "formulating S.M.A.R.T goals for your team". We helped each other and found out, that for every need at least one expert was available. The Life Long Learning group also developed special tools like Excel tables which help us know how we can improve our learning process in different stages of our life. They also helped us to create a portfolio – a ring folder with all our work. That was also an idea of our teacher because if you are an architect, you can show your potential employer some drafts or abstracts about your work. But as a manager, what can you show beside your certificates?! So every member of the agency created his personal portfolio with his work and the documentation of his learning process. It included his ideas, and his results he reached for the agency and for the goal, making the European elections more public. At the end of the course the portfolio presentation and the documentation of the learning outcomes was one part of our mark.

'The focus of our work was a real event, the presentation at the International Fair and that was also a very motivating point: We've had a real ending where we present our work to the public. So it wasn't a simulation, it was a real project, only without earning money. We worked as an agency with a hierarchy, a formulated task and one goal, agenda and minutes for every meeting, etc. So I learned a lot how to use Web2.0 for organising my work and planning events as a manager through this course. In my role as coordinator I improved my leading and presentation skills, I learned to delegate and being responsible for reaching the aim. Also in stormy times, be sure there were some of them, I took experiences. When there are conflicts I learned to calm them down and focus on the important thing. Why do we make problems bigger than necessary? When you mentor employees don't tell them what goes bad and what they aren't good in, tell them what works perfect and what their skills are! And also, don't hesitate to make decisions. And for me I can say: I didn't hesitate to work as the coordinator and to this day I've never regretted it.'

Conclusion and feedback

Without any hesitation I would do this course again – my only worry would be that the overwhelming success of the first group of participants may have spoilt me and I would be expecting too much from future participants. The concept of this course which is based on the VITAE model is good, tried and tested, and easily adaptable to new teaching situations. Regular evaluation by the participants will help refine the concept. In the last meeting with the participants I also gave them my personal feedback, stressing what I saw as the strong points of the concept:

Just-in-time-learning

As the learning opportunities were all prompted by concrete tasks which had to be performed within the project the actual learning happened 'just in time'. For example, those participants who had decided to do a large-scale university-wide poster campaign learned all they needed to know about editing pictures, resolution for printing large posters, questions of copyright, etc. just one day before they had to put these skills into practice and make the posters. This is a very gratifying learning style as those who take part in the training sessions immediately see results and get so excited about their progress that the others, who did not participate feel they have missed something important. Students recognized that even very small pieces of know-how allow you to turn into a workshop leader for a very specific field. Since know-how needed to be exchanged in all three fields (Web 2.0; Europe; mentoring) this made it possible for every participant to turn into a teacher or a student for a single learning unit.

Event-orientation

The whole project was focused on a final event and as a consequence all activities became very 'real'. For example, there were no artificial or administrative deadlines by which single work packages needed to be handed in but the whole work-flow was externally determined by real events. It was plausible that the statements which were collected to be put on posters needed to be ready on the day when the posters were produced which was two days before they needed to be put up for the International Fair. This real life experience is, however, more difficult to control than a simulation as the reality shocks (and we had a couple!) can shake up the project from one minute to the other and can cause anxiety and stress for the whole group.

Diverse Range of Skills

The advantage of putting three very different fields of experience (Web 2.0; Europe; mentoring) at the centre of the project made it very real as it highlighted the fact that even before the start there were experts on each of the three subjects in the group. While at the beginning the Web 2.0 group were the real leaders because they already had specific ideas about how Twitter and Facebook could be used to promote the election, after a while the mentoring group became much more visible because they were

organizing the exchange and transfer of knowledge and everybody realized that they held the key to the success of the whole group. All in all it was a pleasure to see that really every member of the agency was able to contribute something that was needed for the final results.

Level of responsibility

After the first meeting the main direction of the project was defined and the different departments decided what their product should be. Within the structure of the virtual agency participants had the choice to take over more or less responsibility (upper management, head of department or ordinary employee). Some participants discovered that they had a talent for managing and organizing others where others realized that the manager's position can be rather lonely and they would have enjoyed doing the tasks more than managing others.

Materials

1. Example of an Agenda of a face-to-face meeting

Motto of the week: Orientation after arrival at 'Europe 2.0'

Meeting Agenda for 'Europe 2.0'
06 April 2009, 11:45
Attendees: Participants AIS
Please bring: curiosity, pro-activeness, courage

11:45	**Minutes:** Daniel, Mareike	Dr. Borgmann
	Soft Start: Access to the moodle – Everybody registered?	
	Welcome	
11.50	**Mission 'Europe 2.0'**	Laurence
	Virtual Journey – 'My Mentor said I am good!'	Jana
	Our Mission: what do we want to achieve?	
	Name for our virtual company	
	Logo	
	Form of organisation: Who are we? How are we organised?	
	Platform 'International Week'?	
12:20	**Working Groups – Mini Projects**	Laurence
	Brainstorm for mini-projects in the areas of:	Jana
	Europe	
	Web 2.0	
	Lifelong Learning	
	Heads of Departments, President, Vice-president	
	Job openings after lunch	
13.15	**Business Lunch**	
14.15	**Recruitment**	Department Heads/
	Presentation of Results to the group work	Job Candidates
	Applications for employment: 'what I can offer…'	
	Selection of applicants	
	Group Work in Departments	All
	Date for next meeting ? Tasks ?	

2. Example of Minutes of a face-to-face meeting

Minutes Part 1 – Meeting 1 'Europe 2.0'
06 April 2009, 11:45 – 15:45
Attendees: Participants of the course
Advanced International Studies
Minutes writer: Daniel, Mareike

1. Soft start: Access to the moodle – Everybody registered?

Dr. Borgmann checked if everybody has registered on the moodle. This is the first step for using the moodle efficiently as a communication platform for our course. Link: http://www.laurent-borgmann.de/learning/course/view.php?id=52

2. Virtual journey: 'My Mentor said I am good!'

The exercise was to imagine:
  • to go abroad for an internship...
  • to our dream country...
  • in our favourite company...

The following situation takes place:
  • For three weeks you have been employed in the company...
  • A colleague says: 'The boss wants to see you!'
  • Entering the office of the boss, she pats you on your shoulder and says: 'Good job! I have no idea how we managed without you.'

Imagine which specific attitude she will praise and what did you do three days ago that she was so impressed about?

Some of the participants of the course gave their specific attitude and described a situation in which it had been displayed.

Many people have problems in pointing out their specific abilities. The exercise was useful to reflect on your own abilities and to have a look at something at which you are good.

Dr. Borgmann will set up a wiki in the moodle where everybody should add one of his/her own positive attitude.

Attitude	Specific action
innovation	MS Access was used innovatively
endurance	business lunch to complete the deal
reliability	working-overtime to complete a job until the dead line
passion	keeping contact with customers during week ends
persuasion	Acquiring new clients
structure	using process diagrams
positive (shock absorbing)	calming a crisis by showing the options
thoroughness	looking at details
self-organisation	finding the work oneself rather than being told

3. Organisation

What kind of 'association' are we going to be?
  • association (4)
  • Ltd. (0)
  • agency (16)

We decided to be an AGENCY.

Parts of the agency:

CEO: Kristina
Coordinator: Tim
Controller: Christopher
Project manager Europe: Diana
Team Europe: Frederike, Caroline, Jana, Liane, Harry, Damla
Project manager Web 2.0: Oliver
Team web 2.0: Christian, Jens, Melanie, Maike, Roland
Project manager Lifelong Learning: Mareike
Team Lifelong Learning: Daniel, Dietmar, Elena, Julia, Barbara

4. Aims & Goals

What are we going to achieve?
Caroline is the mission minder. She will do a first draft of our mission.
Brainstorming 'Mission':
• using web 2.0 tools in order to make Europe interesting for people
• promote activity
• changing Europe, create Europe
• involve people into Europe and activities ('EinSatz für Europa')
• influence people
• make people aware of their future
• Lifelong Learning: mentoring; testing structures

5. First Team Work

Results of the first team work:

• Web 2.0: Want to open a group at XING and at studiVZ for students and alumni. There will be set up an article in Wikipedia about RheinAhrCampus which is going to be linked to XING, studiVZ.

• Europe: They are going to make a video where people will show a statement concerning the slogan 'EinSatz für Europa'.

• LLL: They will do a personal brainstorming to find out about their own ways of learning concerning what, how, when, why.

6. Digression 'English on this course'

Laurence: 'This is not an English course!'

This sentence should be fundamental for the course. It doesn't matter if your English skills are not that good. The most important things are the participation on the course and to speak and NOT to focus on the grammatical perfection of what you are saying.

Do not say: 'I don't speak English!' (Often somebody says this and refers to their imperfect skills, not considering the opportunities of his abilities). The video 'Do you speak English?' showed, in humorous manner, a situation, where a girl needs help and asks two guys, who obviously can speak English, but say they cannot. They do not help the girl. Although this scene is just a humorous sketch, it pointed out that your English skills can be adequate in many situations, even if they are not perfect.

To believe in your skills, think of the number of years you have been learning English.

If you hear a good idea in the room, repeat it and give your own ideas to it or improve it. You can use this also as an opportunity to say something, if you have not said anything.

7. Our Mission

We did a short brainstorming about our mission and what we – as a group – want to achieve and the presentation of ourselves:

Give information about Europe to other students

Short term/long term perspective (we have to distinguish)

Laurence: 'Duration of our mission should be limited to the course or maybe until the European elections.'

Working like a network with different working groups

Acting as a marketing agency:
• 3 groups:
  Europe
  Web 2.0
  Lifelong Learning (find ways to learn after school, becoming mentors)
• Sub-assembly groups in the 3 main groups

We agreed on the three different groups Europe, Web 2.0 and Lifelong Learning. The next step was to find different topics and ideas the different groups can focus on.

The focus of our work should not be on documentation by producing papers and different documents, but the goal is to change something. To be active, pro-active!

Main goal: 'Change Europe and make a positive contribution!' No information!

Web 2.0	Europe	Lifelong learning
program experts mentors	Elections Make the RAC students vote!	methods /techniques
overview of the different tools	webblog	starting a personal career plan
target groups	student exchange (e.g. Erasmus)	portfolio writing
business practice (use for marketing)	travelling/experience abroad	timeline
finding places where we can get involved and make a difference	use 'International week' as a platform	feedback/reflection (maybe every week) to link the ideas of the different groups
	flyers	final report
	web-links about Europe (inform about information)	moodle: discussion forums documentation
	How to promote the ideas? Measure success by doing a survey (clicks on blog), marketing	
	essential information (why should we vote?) simplify the topic Europe	

3. Concept of the course

Europe 2.0 – how to use New Media for Promoting Active Citizenship. It's all about Europe – the rest is technology!

Mission: We want to empower potential Multipliers of the European Idea by developing their digital skills to reach out and mentor young professionals to become active European citizens.

'Spiel-Idee': We will embark on a learning journey in order to explore a new continent called 'Europe 2.0' with the sub-continents 'political Europe' and 'web 2.0'. As 'digital immigrants' we will try to meet the 'digital natives' of 'Europe 2.0' and analyse which aspects of their lives we can learn from and which skills can help us turn into more successful "influencers". In a second step we will implement these new skills for initiating concrete and measureable change.

Aims

Running up to the elections of the European Parliament in June 2009 the project is aimed at getting young managers in contact with the European Union (EU) and its institutions.

- The first target will be to convince the managers that it is important to vote for Europe and to become active European citizens.
- The second target is to familiarize these potential multipliers with digital social media (e.g. Xing, podcasts, twitter, NetVibes)
- The third target is to try out the social media in practice mentoring others to become digital European citizens, too.

By the end of the project mentors and mentees will have a clearer picture about what Europe can do for them and what they can do for Europe and will have tried out diverse digital media which can help initiate change and support managerial practice. By extending their digital and mentoring skills the promoters will extend their personal learning environment and lay the foundation for their personal lifelong learning.

Methodology

The training course will demonstrate the transition from teacher-centric to learner-centric learning whereby the learners will organise themselves and be responsible for their own mini-projects, formulate their aims, milestones, and expected outcomes and try out new forms of peer-teaching and collaborative learning. The teacher will take the role of a facilitator who organises and manages the learning opportunities but hands over the full ownership of the mini-projects to the participants. Concerning use of the new media the training course practices what it preaches and facilitates communication and stores all resources digitally in a learning and management platform – thus introducing social media also for the management of the course. Preference will be given to low-threshold applications which can quickly be implemented for initiating change and

promoting campaigns and events. Choosing and evaluating the appropriateness of digital applications for solving specific communicative tasks is as important as practising our mentoring skills for sharing our ideas and promoting change.

Target group
Young post-graduate multipliers on a master-level training course in Advanced International Studies. Participants will build teams and create and manage their own clearly-defined promotional or awareness-raising projects about of active European citizenship. In the whole group participants will face the questions

• What can I as a European citizen contribute to the construction of our future Europe?

• What is my role as a multiplier and how can mentoring skills facilitate this?

• How can digital social media be used for promoting the European Idea?

Planned Modules
The course will consist of four face-to-face meetings and parallel face-to-face and online mentoring sessions

The mile-stones of the 'learning journey' will include:

• Digital Natives and Digital Immigrants – an intercultural analysis of digital behaviour

• How they do things in Digi-Land – defining aims and learning outcomes

• Keeping a Diary throughout the Journey – Competence Assessment and Portfolio

• Meeting the digital natives and trying their dishes and customs – exploring Wikis, Xing, podcasts, Twitter & Co.

• Taking things home – adopting social media for strategic management

• Telling the folks back home – putting into practice the action plan

Potential Mini-Projects
Conceivable projects could be about

Promoting the European Election (June 2009)

• viral marketing (e.g. video on u-Tube)

• virtual mentoring through social media

• awareness-raising through social media

Promoting European student exchange

• student exchange programs (e.g. Erasmus placements)

• active involvement in career networks (e.g. XING)

• volunteer work for internship associations (e.g. AIESEC)

• Pre-arrival and post-departure contact with foreign students

Promoting internationalisation at home
• Voluntary work in local integration programmes (migrants workers)

Promoting careers in European Institutions

Accompanying Measures:
1. From virtual to real – excursion to Brussels (29 April 2009)
Participants of the course may want to take part in the study trip to
Brussels organised by Mr Schaumann end of April (register with Mr.
Schaumann!)

2. Mentoring @ International Week at RheinAhrCampus
(4 – 8 May 2009)
The project has been registered as one of the featured projects of the
Land Rheinland-Pfalz.

Project participants will turn into multipliers of the European Idea and
mentor their fellow-students to vote in the European Elections on June
7th 2009. The European Union should be presented at RheinAhrCampus
during the week.

Potential presentations by course participants:
• Presentation of mini-projects
• Podcast 'Europe 2.0' – how to use New Media for Promoting Active
• Citizenship.
• Panel discussion with European experts. Lecture by an expert on the
  European Union
• Promotion desk: flyers and posters, information about the European
  Union, quiz
• Consultation and mentoring desk 'Find your voice in Europe!'
• Poster activity: 'Einsatz für Europa – Ein Satz für Europa!'
• European success stories (e.g. How Leonardo changed my Career)

Teacher-coordinator:
Dr. Laurent Borgmann, Leiter Sprachen/Internationales, FH Koblenz,
RheinAhrCampus, e-mail: borgmann@rheinahrcampus.de
Laurent Borgmann teaches International Studies at university level, has
used ICT in the classroom for ten years, and worked for the European
Commission in Brussels for a year.

Student-coordinator:
Jana Hoffmann, Master BWL (GUS), e-mail: jana-hoff@web.de
Jana Hoffmann completed her Bachelor Degree in „European Studies" at
the University of Technology in Chemnitz and has worked on European
institutions and politics.

Chapter 4

Moderated collaborative online learning - guided course development on the basis of an e-learning pattern template

Marcus Feßler

Introduction

This article guides you through the development of a successful moderated and collaborative e-learning course on the basis of an e-learning pattern template. The created patterns are a blueprint of the learning activity which could be implemented by using different web-based communication tools. The "e-learning pattern template" takes the special context of online-courses (compared to face-to-face teaching) into account, with a development focus on the participants' motivation.

4.1 Course development – project experiences

The usefulness of creating and using guided course development is demonstrated and developed further in different European funded projects, such as VITAE. In order to facilitate the design of e-learning activities by different authors a template has been used, for instance the "VITAE learning activity template" gives guidance for development. The online course modules in VITAE have been developed by different authors and implemented in two different course types. One implementation technology was the Learning Management System "Moodle" as the virtual classroom environment, the other concept was to combine (mashup) different Web 2.0 tools and use this combination as the course environment. To ensure a high level of didactical consistency the usage of a common ground, the template, was very effective. The template describes the module independently of the technology used later.

From experience in the area of the development of collaborative online courses two aspects could be identified as key success factors:

1. Motivated participants (much more important than in face-to-face learning situations) *"Motivation is the most overlooked aspect of instructional strategy, and perhaps the most critical element needed for employee-learners."* (Kruse, 2002)
2. Course development concentrating on didactics, rather than on technology

The two factors will be described in detail in the following two sections where two practical tools are introduced. The tools are a) the ARCS Motivation model, and b) an e-learning pattern template, which gives guidance and makes course development faster.

4.2 Motivation

4.2.1 Motivation and online-teaching

During face-to-face lessons participants are at least physically present and can be addressed directly with a visible response. In the case of online education the teacher often cannot be sure how much time the participants have invested. The most important concern of all teachers is to have active, contributing learners in the classroom; it is the main

success factor in their teaching. To get active participants, you need to motivate them. In connection with online teaching we targeted:

• Reducing the numbers of participants who drop out
• Reduction of the support expenses
• Raising the level of good quality communication

Motivation is defined in many ways, depending on the field of activity. In the area of learning the following definition fits: *"Motivation could be seen as a personal state or condition that activates behavior in a special direction"* (Kleinginna & Kleinginna, 1981).

Every learning activity is designed to give the learner a direction in terms of gathering new knowledge and applying this knowledge, especially by collaborating with other course participants. The motivation of the participants is seen as the main success factor and the main creative element which should be implemented during the whole development process, from formulating the learning objective to the completion of the course modules. The ARCS model described below could lead in this direction.

4.2.2 Development of motivating course content by using the ARCS model

In order to motivate online learners, the ARCS model[1] can give guidance during the development of online tasks and towards their accomplishment. The model was developed by Dr. John Keller, professor of instructional systems and educational psychology at the Florida State University.

> *"The ARCS model is a problem solving approach to designing the motivational aspects of learning environments to stimulate and sustain students' motivation to learn."* (Keller and Kopp, 1987).

On the following pages the ARCS model will be introduced in connection with procedures and examples from practical course development. The ARCS acronym stands for the four conditions of motivation:

Attention, **R**elevance, **C**onfidence and **S**atisfaction. During the course development the project team tried to take the four conditions and subconditions into account. In the table on the following pages (table 4.1) you can find the categories, each with the three subcategories followed by a description and some practical actions.

One of the core statements of the ARCS model is that motivational aspects cannot be added later. These aspects must be taken into account during the whole development process of the e-learning course. The model described could help to raise the quality and the learning outcome of the online activity by keeping the didactical aspects at the forefront. In order to ease and secure the development process, the following e-learning pattern approach could be used.

[1] Anrone, M. P., Motivational Design, 2004, Page 30ff

Table 4.1   The ARCS model

The ARCS Model

Attention, attract and hold interest

Sub-condition	Description	Practical actions, tried out in VITAE
A1: Perceptual arousal	strategies to capture the interest of the course participants	As a moderator you can post surprising or contradictory entries, maybe accompanied by pictures - but take care that you don't overdo it. Also try to avoid distractions like: inconsistencies in the user-interface in different course stages.
A2: Inquiry arousal	strategies to raise the curiosity of the participants and to stimulate questioning	Promote active discovery and research e.g. by using goal-based scenarios or role-plays.
A3: Variability	use short and different elements to hold the attention	Try to use short and clear instructional parts in alternation with interactive or collaborative tasks/group work (if it is didactically appropriate). For collaborative tasks you could use e.g. wikis, blogs or forums.

Relevance, concerning the target and/or the learning process

Sub-condition	Description	Practical actions, tried out in VITAE
R1: Goal orientation	strategies that meet learners needs or give the learners the possibility to meet their own goals	The learning goals should be clear for the participants.
R2: Motive matching	strategies that address the participants' personal interests or learning styles	Try to create different tasks that fit different personal knowledge levels, e.g. tasks where the usage of privileged technologies is optional like the presentation of a text-based task or as an audio-file. Keep in mind that collaborative tasks have a positive effect on motivation.
R3: Familiarity	strategies that build on the participants personal experiences	Use colourful elements (scenarios, tasks) which are connected with real-life or with the experiences of the participants.

Confidence, the positive expectation of a successful completion of the course

Sub-condition	Description	Practical actions, tried out in VITAE
C1: Learning requirements	For the participants it should be clear which kind of pre-knowledge is needed, which are the demands of the course and which goals should be reached. In addition to this the rating criteria should be formalized and understandable.	In every step of the course for the participant it should be clear what is expected and what comes next. For the online course the participants could get a (graphical) course plan containing a time schedule.
C2: Success opportunities	strategies that support the competencies of the participants, in connection with R1	It is important to give all participants the possibility to succeed, whatever their competency level, otherwise they will lose motivation.
C3: Personal responsibility	Feedback that shows the participants that their own abilities and efforts are the basis for success	The time-schedule of the work on the tasks shouldn't be too tight; participants should be able to regulate their own learning speed. In the learning environment it is very helpful if the learners can "jump" between the different elements, they shouldn't be restricted to a linear flow. Regular feedback should always include the reason for success or failure.

Satisfaction, the results of the efforts differs from the expectations = de-motivation

Sub-condition	Description	Practical actions, tried out in VITAE
S1: Intrinsic reinforcement	strategies that encourage participants' intrinsic motivation to learn	The envisaged goals or tasks to work on should be connected with the everyday life of the course participants.
S2: Extrinsic rewards	strategies that provide appropriate rewards for success	e.g. in the form of positive feedback
S3: Equity	strategies that let the participants know that they are being treated fairly[2]	The rating criteria of the moderator/teacher should be clear from the beginning.

[2] Niegemann, H.M., Kompendium E-Learning, 2004, page 206ff

4.3 Course development by using e-learning patterns

An e-learning pattern describes a special problem or learning scenario. It shows, for example the targeted learning outcome, the way to reach it and identifies challenges with possible solution strategies. The pattern can be seen as a kind of "trail through the jungle" (Kohls, 2008). The term "e-learning pattern" is derived from the term "design pattern" which was developed in the 1970s in the area of architecture.

> *"Each pattern describes a problem which occurs over and over again in our environment and then describes the core of the solution to that problem, in such a way that you can use this solution a million times over without ever doing it the same way twice."* (Alexander, 1977).

Software developers picked up this idea to ease access to high quality software engineering by less experienced programmers (Beck and Cunn, 1987). A few years later the idea of re-usable, approved solutions – design patterns – reached education. Proven e-learning patterns are a very useful tool for developing successful online activities in the areas of distance learning, blended learning or in general online-education. Advantages of e-learning patterns in the area of distance-learning:

- Re-usable, approved learning modules
- Independence from future implementations of technology
- Concentration on the learning outcomes and the didactical concept rather than on technology

In this article an e-learning pattern is defined as an activity plan which describes the online-learning activity on a meta-level, independent of the later implementation technology such as Moodle, ILIAS or Blackboard as a LMS[3] or a mashup of useful Web 2.0 tools.

[3] LMS = Learning Management System

4.3.1 The learning outcome – first step towards an e-learning pattern

Start with clear goals! You need to have a very clear goal about what your online learning module actually targets. In an ideal world the learning goal will fit the needs of the participants, which is not always the case, especially in schools. Nevertheless it should be possible to examine tasks or scenarios which play a role in the participants' everyday life. To formulate the learning goal think of the different areas of knowledge you could communicate:

What do you want the participants to take away from the online course?
  - Concerning the content of the course (knowledge)
  - Concerning the skills they gain (e.g. usage of tools like wikis or forums)
  - Concerning the "higher-order thinking" they should develop
    (e.g. critical thinking, communication and presentation techniques)
  - Who are the participants (target group of the course)?
  - At which level are the participants?
  - Could they meet the teacher/moderator expectations?

- Could they use the given online-environment (or do they need further training)?
- Are the necessary resources available to all (e.g. internet access)?

The e-learning pattern template which will be discussed in the next section is a more advanced version of the "VITAE learning activity template", which was used as a common base for the VITAE course development.

4.3.2 The e-learning pattern template

The e-learning pattern template (fig 4.1) describes the module independent of the future implementation technology. The template can be seen as a guideline, based on expert knowledge in the area of online course development. With the help of the template e-learning patterns can be created. This pattern could be accompanied by attachments, like a quiz as a text document, graphics, tables etc.

The template (table 4.2) is based on the successful LIPS project (Language and Intercultural Preparation for Students) and shows how an e-learning pattern template could also be implemented for vocational students. The online course was offered to university students about to start foreign internships but could be equally applied to vocational students about to begin a shorter period of work experience closer to home.

The rows containing the icon [icon] could be used word-for-word within the online module (as information for the participants). The examples given describe an activity which should prepare course participants for their first working day in a company.
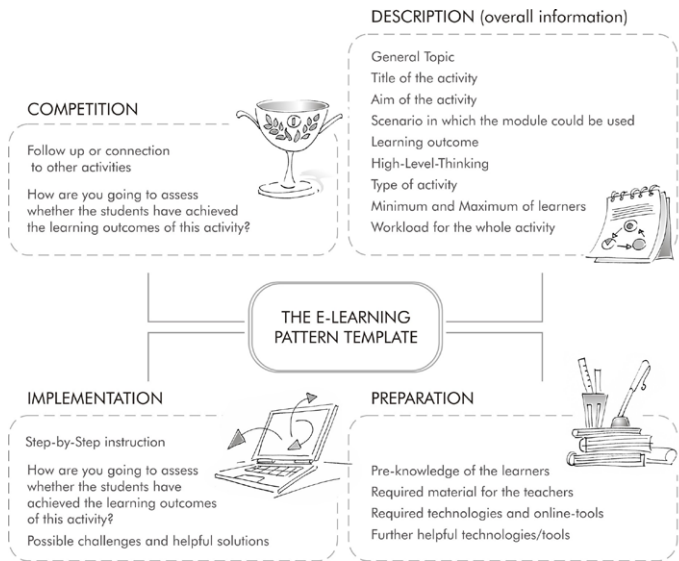
Fig 4.1 Composition of the template

Table 4.2   The e-learning pattern template

Description (overall information)	
General Topic (meaningful and easy to classify)	e.g. preparation for the workplace
Title of the activity (attractive title for the participants)	e.g. How to survive the first day in the workplace
Aim of the activity (readable by the participants)	e.g. The aim of this module is to raise your awareness of the possible challenges on your first day in a new working environment. On your first day on the job you need to go out of your way to make a very good first impression. In addition, you need to be prepared for the dense flow of information and you need to develop coping strategies in advance.
Scenario in which the module could be used (The scenario describes the usefulness and practicability of the knowledge gained in a "colourful story" in order to motivate the course participants.)	The students could listen to the sample scenarios or read it as a text: **The employee's version is:** Oh the taxi got me there on time but dropped me at the wrong entrance. So, I literally had to run a good 300m and up a flight of steps. I was only 6 minutes late, but it wasn't my fault, it was the taxi's. The boss was not too impressed I could tell when her secretary introduced me. She did not seem interested in excuses and expected me to have another copy of my portfolio with me. I had sent the company one 6 months ago. That was no longer considered interesting. I was introduced to a whole load of people including a couple of other interns, they should be a help when I get started, in fact they invited me to lunch but, of course, I told them I couldn't keep you waiting. Boy, was I glad to have that excuse, it was a big enough ordeal meeting so many new faces, and of course I couldn't begin to tell you who is who or what their names are. In fact, I took the male secretary who is the older and nicer of the two to be the boss at first … **The employer's version:** Yet another highly unprofessional employee. Remember the last one who arrived 20 minutes late for the afternoon appointment. She had driven to the office before lunch, checked out where she had to go, she had even introduced herself to my secretary but went off for lunch and could not find her way back on time. This time the individual arrived panting and puffing accusing the taxi driver for leaving him at the wrong entrance! Can you believe it? Why should I have to explain that if I can be here on time so can they! This one did not consider it worth his while to bring along an up-to-date portfolio, the one I received 6 months ago and prepared 6 months prior to that was supposed to suffice. We invited him to lunch, but oh no, his girlfriend had come to help him settle in and you know he was more anxious not to keep his girlfriend waiting even than to devote a few extra minutes to an aperitif. We had assumed he would be staying for lunch and a couple of the other interns had offered to invite him. I found the whole experience most dissatisfying.

Learning outcome (What will students be able to do as a result of the learning activity?)	e.g. If the participants is introduced to a new working environment the awareness of possible challenges is raised.
High level thinking (which critical or creative thinking skills, decision-making, scientific inquiry or problem solving required of the students by this task?)	List or describe activities that support the selected Bloom's levels[4]. The levels are "Knowledge", "Comprehension", "Application", "Analysis", "Synthesis, Evaluation".
Type of activity (Individual or group work , moderated or un-moderated)	Individual: listen to or read the sample scenario, do a quiz, post suggestions for the first day to the forum
Minimum/maximum learners (For most activities it is advisable to stay within a certain range of participants)	Here would be the minimum and maximum range of participants
Workload of the whole activity (How much time needs to be spent on this task? A rough guide will help you decide if the effort is in proportion to the anticipated learning outcome(s).	e.g. the duration of this module is two weeks, with a workload of 2 hours per week. In order to avoid excessive demands within large online activities it could be helpful to split up the workload into categories like: "reading-time", "personal working time", "collaboration-time" etc.

Preparation of the activity

Pre-knowledge of the learners (Try to request the pre-knowledge of the learners in the area of computer-skills, media-literacy)	e.g. "What kind of computer skills do the participants have?" Basic computer skills are necessary to use the learning platform. It must be ensured that the participants are able to (also technically) watch a video, to listen to an mp3-audio file, read texts from their PC.
Required material for the teacher	e.g. a sample scenario as an audio (mp3) file, prepared questions and answers for an online-quiz
Required technologies & online tools (what is needed for the execution of this task? Can this product be made without using the above technology? If yes, consider removing ICT use for this learning activity.)	e.g. instead of using a forum to collect the "suggestion" requested in the task a collaborative mindmapping service (e.g. http://www.mindomo.com) could be used to create a common map.
Further helpful technologies/tools	

---

[4] http://www.coun.uvic.ca/learning/exams/blooms-taxonomy.html, 6.5.2009

Implementation	
Step-by step instruction (kind of activity timing for the teacher or moderator)	**1.** The participants get a message from the moderator that the module is accessible in the course environment. The moderator is responsible for the accessibility of the module at the right time. **2.** The participants should watch the video intro clip for this module **3.** In a coloured box all tasks of the week are shown at once, no tasks will be changed later! **4.** Concrete tasks for the participants: • Listen to the sample scenario or read the text • Answer the questions from the quiz in the "First Day Quiz" forum • Just how well prepared can you be for the first day on the job? Draw up a list of suggestions (at least six) for the first face-to-face meeting with your employer. Of course, the example scenario and the postings from task one should provide helpful ideas to get you started. However, we would ask you to be creative and offer new suggestions, related to the pressures of the first day, e.g., coping strategies for dealing with the dense flow of information, ("who's who", new names and new faces, etc.). Please post your suggestions in the suggestions for the first day forum.
How are you going to assess whether the students have achieved the learning outcomes of this activity?	e.g. Does the proposed assessment allow you to measure the success of the learning activity across different student groups?
Possible challenges and helpful solutions	e.g. Problem: Participants might only report what they think is appropriate for the first day in the job of their home country Solution: encourage exchange of different behaviour/customs in different countries

If you use this template you don't have to fill every section, it always depends on your learning outcomes. The template can also be seen as a kind of checklist which could raise the level of quality within your online module.

Conclusions

Benefits of the supplementation of face-to-face sessions with online activities
The participants of the online activities gain a lot of experience in the area of web-based communication around a specific topic/project. Alongside subject-specific expertise, skills in web-based communication skill are increasingly needed in working life.

Practical and theoretical benefits of the e-learning pattern approach
The pattern approach is an efficient way of sharing good design practices, and can ease the development of usable, pedagogically effective e-

learning materials which can benefit both teachers/trainers and learners. By using the e-learning pattern template a meta-description of a learning module can be created, which can then be developed further through practical try-outs during and in connection with face-to-face teaching. Through repeated occurrences of the same problem and solution (in different contexts), an e-learning pattern can be developed which can be shared with colleagues as part of a more systematic knowledge-sharing strategy.

References

Alexander, C. (1977). A Pattern Language. Oxford University Press, New York

Arnone, M. P. (2004). Motivational Design: The Secret to Producing Effective Children's Media, Scarecrow Press, Inc., Maryland. Available at: http://books.google.de/books?id=dOk20wGWlegC&pg=PA73&dq=Motivation+in+cyber+learning+environments#PPA31,M1

Beck, K. (1987) Using Design Pattern languages for Object-Oriented Programs, OOPSLA-87 workshop on the Specification and Design for Object-Oriented Programming

Keller, J.M., Kopp, T.W. (1987). Application of the ARCS model to motivational design. In **C. M. Reigeluth** (Ed.), Instructional Theories in Action: Lessons Illustrating Selected Theories. New York: Lawrence Erlbaum, Publishers, 289 - 320

Kohls, C. (2008) E-Learning – Sendung 13: Pattern im E-Learning, Interview 6.11.2008, Podcast E-Learning in Mecklenburg Vorpommern

Kleinginna, P. Jr. & Kleinginna A. (1981). A categorized list of motivation definitions, with suggestions for a consensual definition, Motivation and Emotion, 5, page 263-291

Kruse, K. (2002). The Magic of Learner Motivation: The ARCS Model. In: http://www.elearningguru.com/articles/art3_5.htm

Niegemann, H.M. (2004) Kompendium E-Learning. Springer Verlag Berlin Heidelberg

Prensky, M. (2001). Digital natives, digital immigrants, On the Horizon, 9(5), 1–2, available: http://www.marcprensky.com/writing/Prensky - Digital Natives, Digital Immigrants - Part1.pdf, 05.05.2009

Chapter 5

Fun and Games in professional development

Anne Fox
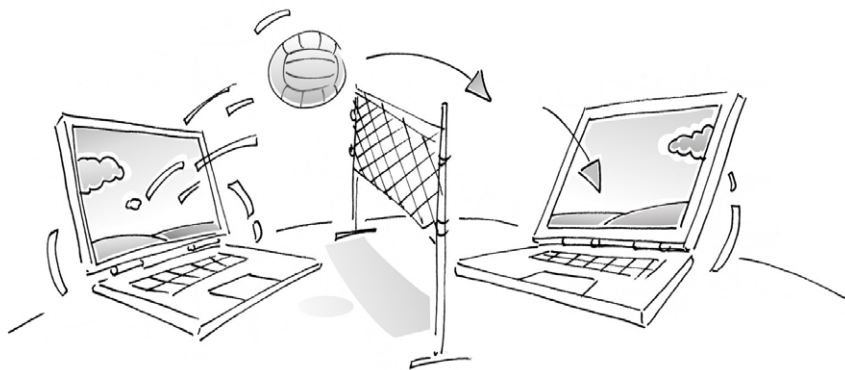
Introduction

'People are wrong to regard play as just a frill.' says Marc Bekoff who believes that it allows people to try out new things because they can make mistakes without penalty. (New Scientist[1])

[1] http://www.newscientist
.com/articlemg20227073
.100-be-more-playful.html

The VITAE mission is to empower vocational teachers to mentor their students and colleagues to work competently in the digital world. One consequence of developments in the digital world is the opportunity to think about what is really effective in promoting learning since ICT allows for a more personalised learning experience. The role of simulation and game-based learning is increasingly recognised as a natural way to learn. The gaming industry has become a leading business activity globally largely because the games being developed are realistic, immersive and, some would say, addictive. It makes sense therefore also to include playful aspects in professional development. The VITAE training course included several gaming and simulation elements. This chapter will discuss the justification for their inclusion and will describe three of these activities as well as why and how they were used. The games cover the mentoring function, knowledge sharing and appropriate choice of Web 2.0 tools. Since these are freely available online, readers can then try them out for themselves.

Integrating ICT in teaching can challenge many dearly held beliefs about cheating, copying, reliable sources of information and the appropriacy of mobile phones in the classroom to name but a few. Rather than challenging these deeply held beliefs directly in ICT integration training, it may be beneficial to explore these issues in a gaming context instead. There is a movement to introduce more game-based learning for our students so why not in professional development? Playing training games is not new. In fact it could be argued that game-based learning has taken longer to reach the classroom than the training room. However game-based learning is gaining ground in mainstream education and the VITAE project explored whether there were any game-based exercises which would be particularly relevant to transmitting the VITAE approach of training vocational teachers in how to integrate ICT and to mentor their colleagues in this integration. An important consideration was whether the time and effort of playing a game is worth the learning outcomes.

5.1 What is game-based learning?

Games can cover a multitude of options both individual and team-based and both online and offline. Even to define what a game is can cause confusion. For example, many people see the virtual world of Second Life as a game but strictly speaking Second Life is just an environment in which games can be played but in which other activities such as meetings, performances and conferences are equally valid and in fact far more common than games. So in virtual worlds it is the social aspect which is uppermost and these are called multi-user virtual environments or

MUVEs. In recent years the electronic gaming industry has grown to such an extent that it was worth $37 billion globally in 2008 with parents and educators worrying about the effect on children and young people of spending so many hours in front of their computer screens. Inevitably with electronic games exerting such a pull, these are the ones which get the most attention and are probably also the types of games least likely to be accepted in a mainstream classroom as a valid learning vehicle. However when speaking of vocational education these are the games most likely to be filling the leisure hours of the young people we are otherwise trying to engage in learning. The Pew Internet report on adults and video games found for example that 97% of teens play video games.[2]

[2] http://www.pewinternet.org/-/media//Files/Reports/2008/PIP_Adult_gaming_memo.pdf.pdf

So what is a game? Strictly a game should have the following attributes (see for example Bennett & Warnock):

- Fantasy
- Rules and goals
- Sensory stimuli
- Challenge
- Mystery
- Control

The end result of playing a game is that the player is immersed in the framework of the activity and is therefore self-motivated to continue to the end, a state of mind which has been defined as 'flow' by Csikszentmihalyi (1992). This is in stark contrast to the cajoling, bribery and threats which sometimes have to be employed to get learners to complete pedagogical activities. It is hardly surprising then that the prospect of using games to promote incidental and painless learning is so attractive. When games are used in the service of learning they usually need a certain set of specific features as follows.

Features of game-based learning (GBL)[3]:

[3] Teed, R. Science Education Resource Center, Carleton College

- GBL uses competitive exercises, either pitting the students against each other or getting them to challenge themselves in order to motivate them to learn better.
- Games often have a fantasy element that engages players in a learning activity through a storyline.
- In order to create a truly educational game, the instructor needs to make sure that learning the material is essential to scoring and winning.

[4] Marc Prensky at IATEFL 2009-05-13, http://iatefl.britishcouncil.org/2009/sessions/62/q-marc-prensky

With Prensky[4] and Gee[5] as eloquent champions of using games in learning this approach is steadily gaining more acceptance to the extent that, at the time of writing, an American high school, Quest2Learn, is being set up in New York with the first intake in the fall of 2009 entirely based on a game-based approach. While this may conjure up images of children playing video games all day long the interpretation of game-based learning adopted here is much broader and takes in role playing and simula-

[5] See for example http://wistechnology.com/articles/243/

tions. If this approach has positive effects on motivation and performance as expected then it could act as a best practice model not only for the compulsory school years but beyond into vocational and higher education and lifelong learning.

According to the Institute of Play, which sponsored Quest2Learn, gaming produces a set of gaming literacies over and above subject specific content; literacies which they believe are of value in the current fast-changing, innovation and technology driven work environment. Below is how they explain their approach to forthcoming students and their parents.

What are gaming literacies?

'The term refers to a set of skills, tools, and experiential "dispositions" that come from the design, culture, and play of games. Examples include the ability to read, write, and act within dynamic systems, to think procedurally within computationally rich spaces, to build worlds and navigate complex information networks, and to engage in collaborative peer-to-peer learning. A gaming disposition cultivates an attitude oriented toward:

- *Risk-taking*
- *Critical reflection*
- *Collaboration*
- *Meaning creation*
- *Non-linear navigation*
- *Problem-solving and problem definition*
- *Innovation*

We think these literacies and attitudes form the basis of a kind of "gamer intelligence" that is remarkably relevant for productive citizenship in the 21st century.'

What kinds of games are you talking about?

'Digital games, videogames, mobile games, board games, paper-based games, collectable card games, big games, pervasive games, alternate reality games (ARG), slow games, fast games, and everything in between.'

5.2 Evidence of digital games-based learning in vocational education

A recent audit at the author's vocational education institution revealed that games were being used in many different subjects ranging from language to technical topics, on an occasional basis. The games used included simulations of technical and natural processes and short educational games. They did not include longer games or those used by the students in their free time such as World of Warcraft. This shows that teachers appreciate some of the pedagogic benefits of the game-based approach even though they have not been formally trained in its use. The

Quest2Learn approach may therefore represent an unlocked door which can be pushed open without too much effort.

5.3 How could GBL be used in professional development?

It should be apparent from the foregoing that we are likely to see greatly increased use of games, simulations and role playing in vocational education as elsewhere in the educational world. As time goes on there will certainly be a need to train vocational teachers in the use of game-based approaches and it seems logical that if game-based approaches are effective for vocational students then they are also likely to be effective in teacher training.

We will therefore examine three games for their potential relevance to the VITAE training model. The three games are:

1. Mentoring Ms Montford
2. Diffusion of Innovation Simulation
3. Social Web Game

We can see the application of these games to the VITAE model in figure 5.1. Clearly Mentoring Ms Montfort addresses the mentor training aspect while the Diffusion of Innovation Simulation addresses the wider issue of how an innovation can be effectively disseminated and adopted by a critical mass of people in one institution. Finally the Social Web game addresses some of the specific tools offered by Web 2.0 and how they can be used to increase productivity and learning in an educational institution. Taken together then, these three games offer the possibility to address all the major issues in the VITAE project even though they were not originally connected in any way. We will now look in more detail at each game and what it can offer the VITAE process.

5.4 The three games

5.4.1 Mentoring Ms Montfort[6]

This is an online action maze by Atherton which is meant to represent approximately one hour of conversation with the player as a mentor to another teacher in the institution. The game was originally created as a face to face group activity played through a system of cards. The game is set in a higher education environment but the issues are universal and it can therefore also be applied to a vocational education setting.

[6] Atherton J S (2002) Exercise: Mentoring Ms Montfort: Introduction to Action Maze [On-line] UK; Available: http://www.doceo.co.uk/mentmaze_web/index.htm

Game objective: According to the author the objectives of the game are:

- to draw the 'moral' of opportunity costs: the cost of the mentoring session you do have is all the potential sessions you could have had but didn't!
- to explore how the mentor can influence the conduct of the session in very subtle ways
- to enable you to find out if you have any particular 'bias' in your conduct of mentoring

Application: In the VITAE project the game was used as a virtual kick-off activity for the project partners to get us to a common understanding about one of the most important concepts of the project. Project partners played the game online individually and then reported back to a virtual forum about how the experience had been for them. Since not all project partners had met before this also gave us a common experience to share once we met face to face for the first time at the beginning of the project.

Game play: The game takes 30-45 minutes to simulate an hour of discussion depending on how much time is taken to choose each branch in the conversation.
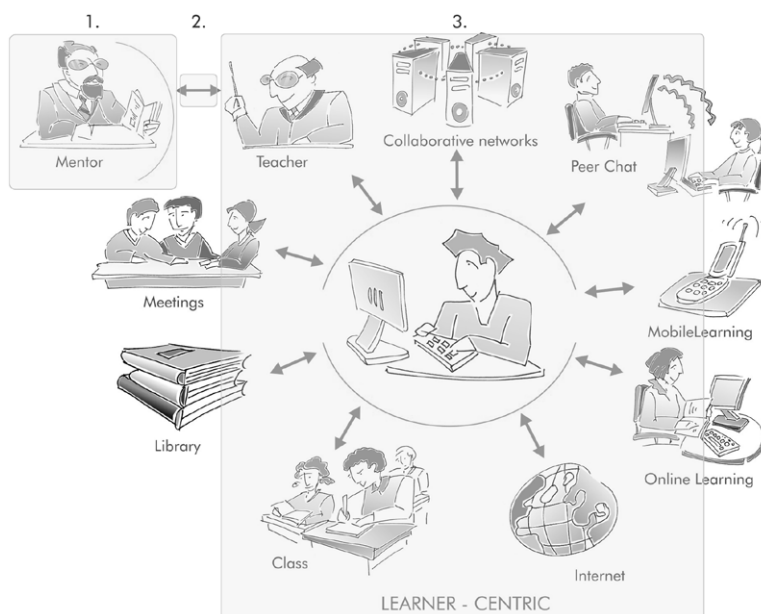
Fig. 5.1 How the three games relate to the different parts of the VITAE model. Key: 1. Mentoring Ms Montfort; 2. Diuffusionof Innovation Simulation; 3. Social Web Game

The mentoring conversation starts in the following way:

'Simone starts telling you about a seminar group she took yesterday, which did not go at all well. She came out of the session "all steamed up" because the students seemed so disengaged and downright thick. The content had been pretty straightforward, and she had never had any difficulty with it, so what was wrong with them?

Do you:

1. *Go into the background of the course and explain what may have made them like that?*
2. *Point out, as gently as you can, that if a session doesn't go well, it's down to the lecturer?*
3. *Get her to explain in more detail what it was she felt went wrong?*
4. *Explore her feelings and why she left feeling "steamed up"?'*

We might wish that one of the options was to challenge and explore the reasons for Simone's use of the phrase 'downright thick' but if we pick option 3 the conversation continues as follows:

'Simone says, "The students just don't want to know: or if they do, they want me to tell them everything so they can write it down in their little books. It's pathetic - ask them a question and they just sit there and look at you as if... I don't know!" '

This leads to the following options:

'Do you:

1. *Ask her if she's really being fair?*
2. *Suggest that she should not collude with them: she should try to engage them in discussion?*
3. *Point out the students' anxieties and that they may not yet know how to study properly?'*

There are literally thousands of routes through this conversation and the exercise takes about 30-45 minutes to complete. The idea is that the hour is up after about ten exchanges when you are prompted to bring the conversation to a close.

The essence of effective mentoring is to ask open questions at first and to be non-judgmental in an effort to bring the mentee to a better understanding of their own motivations and possibilities. And these are the avenues which lead to the more satisfactory outcomes. On the other hand if the player picks 'Pull yourself together!' type responses then the conversation goes rapidly downhill. If we look more closely at the first two exchanges in the session we can see that in the first exchange all

the classic options are available. Option 1 of going into the background of the course and explaining what might have made the students react in the way they did, is a way of preventing Simone from coming to these conclusions herself. It represents the reaction of many untrained people who want to be helpful and solve the problem as quickly as possible by presenting what they see as the obvious solution. Option 2 represents the apportioning of blame and judging the mentee. It is likely to result in a defensive reaction from Simone (why not try it and see?). Option 3 focuses on the situation and trying to find what was wrong with it while option 4 focuses more on Simone herself and was probably the best response since it could be that there are background issues affecting Simone's attitude and demeanor which have nothing to do with the students or the topic but which nevertheless affect her mood and behaviour and which will in turn affect the students' response to her.

However in our imaginary conversation we tried option 3. In this case we were not presented with the four alternatives analogous to the first exchange. The first option is the judgmental one. The second option is a mixture of judgment and instant solution while the third option is another instant solution or in this case, diagnosis, that the students may not know how to study. This round of the game is lacking the option of drawing the mentee's own perceptions of the situation out into the open. Does this mean that the game lacks value? Not necessarily since it is the context and manner in which the game is played which is what adds value. So if playing the game led to discussion on the lines contained in this paragraph and the preceding one then it has the potential to help aspiring mentors to deeply embed the central concepts involved in mentoring.

The game comes with a useful log sheet which can be used to note the route taken through the conversation as well as logging your intentions and strategy as you progress through the game. It is also useful to play the game more than once, testing different strategies to see where they lead. A game like this is only as good as the options programmed into it so it is also interesting to see the different outcomes for different players.

Game outcome: Below are two extracts from the follow up asynchronous discussion in the project forum.

1. My strategy was to avoid overly emotional discussions and to avoid being seen as 'the expert', a role which I am not able to fulfill. The mode of 'let's try to find a way out together' (which means both partners have to work - on a product such as exercises, lesson plans? - and the help comes with the joint reflection/thinking through of strategies) seemed to work well - according to the maze, but also in practice?

2. I must say that I am very pleased and surprised that I managed to have a useful session. When I first started I thought that this woman was going to react badly to every suggestion that I made but we managed to have a fruitful session even if it was not the best outcome.

The first quote shows that the game does indeed lead to reflection on the best strategy to help a teaching colleague. It also shows the scepticism people may experience about using a game to learn about a soft skill such as mentoring.

The second quote illustrates that the game is sufficiently challenging so as not to make a positive outcome guaranteed. There were also participants who were unable to find a successful route through the session and who got extremely frustrated as a result. Although this is a negative outcome it does illustrate the potential for games to arouse strong emotions. It should also be noted that even in this negative example the participant involved recognized that the route to success in the game was often through open questions but questioned whether this was indeed the best strategy. So even 'failures' led to useful reflection on the topic in hand.

Since this game was designed several years ago (in 2001) it is not visually attractive but it works well from a technical point of view. We do not see what Ms Montfort looks like and we don't hear her tone of voice. We only see the text of her responses so does this mean that we miss out on nuances? The answer is almost certainly yes in comparison to game makers such as Caspian Learning on whose website you can see an animated training demo[7] about how to approach an elderly person when delivering a service. In this demo the unsteady walk of the elderly lady and her wavery voice all add to the cues leading you to make the right choice of response and these types of stimuli are entirely lacking in Mentoring Ms Montfort which is completely text based.

An inevitable question is whether this game is sufficient to train teachers to be mentors. Clearly it is not and needs to be supplemented by other material, case studies and real life practice but we would argue that it has a place as part of a mentor training course because of the deep reflection which it promotes around the topic of mentoring.

5.4.2 Diffusion of Innovation

One of the most difficult aspects of integrating ICT in an institution seems to be convincing colleagues that it is a good idea. There is something about the introduction of ICT which can be threatening to established teachers. Certainly this is a theme which has been commonly expressed in the Webheads in Action community of practice which helps teachers of English with ICT integration. There is even the 'strength of weak ties' theory which posits that people are likely to give more credence to advice which comes from an external rather than a close, internal source. It is worth therefore exploring the dynamic of how new ideas get adopted and this is the objective of the Diffusion of Innovation simulation. The fact that the simulation exists is in itself testament to the difficulty of getting adoption of new ideas in educational institutions and is one of the reasons why projects such as VITAE attract funding.

[7] Digital Switchover demo

Game objective: 'In this simulation you will be playing the role of a change agent in a hypothetical school. Your objective is to persuade as many of the staff members as possible to adopt a particular innovation – peer-tutoring. You have two years to get as much adoption as you can.'

Application: Diffusing innovation is a complex process and a simulation like this can help to give an idea of the multiple forces at work in an institution. In the VITAE project we have chosen mentoring of colleagues as the main path to adoption and integration of ICT but we recognized from the beginning that this would not happen without the support of the management of the institution. A simulation such as this aids in asking the right questions about individual institutions thinking of adopting the VITAE approach; questions such as what are the key committees? Who are the innovators? What social networks exist within the institution?

Game play: The game takes approximately 90 minutes to go through one two year cycle.

In the game there are a series of actions you can take to increase the number of staff adopting your innovation. Each action costs time and there is a limit of two years in which to achieve your objective. In playing

Fig. 5.2 Diffusion of Innovation simulation. Key: 1. The main objective; 2. The limited resources (time); 3. How progress is measured; 4. Action options; 5. Critical information

the game you soon realize that it is important to talk with people and prime them with information and demonstrations before expecting them to adopt your proposed innovation. In fact human relations are so important that this is how the game begins when you must choose which five people you want more information about. There is an interesting choice between confrontation and compulsion or demonstration and persuasion. The developers of the game at Indiana University say that the consequences programmed into the game are based on research results of how innovation actually happens in school environments. A screenshot of the game (fig. 5.2) highlights the significant parts of the simulation. It also illustrates that this is yet another low tech production which is completely text based.

Game Outcome: The target is to get as many adopters as possible out of the 22 teaching staff included in the game. In fact if you get 100% adoption before the two years are up then the game ends and you have won. Again it is worth playing the game several times to see how your actions affect the final outcome. As with Mentoring Ms Montfort there is a great deal to be gained by extensive discussions before, during and after the game and there is a game log available if you choose to apply for full access.

5.4.3 The Social Web Game

The social web game is a face to face group activity in contrast to the previous two games. It has been used in several different contexts including a pure business environment and by social entrepreneurs. The game is for people who have a basic understanding of the main Web 2.0 applications such as blogs, wikis, podcasts and synchronous meeting tools since the idea of the game is to choose the best tool or set of tools for the job. The version referred to here has been adapted for an educational setting and is available under an open Creative Commons licence.[8] The game is step 2 in a 3 step process as described below.

1. Envisage the system
2. Design the system collaboratively (through the game)
3. Build openly

Game objective: Once the general direction of desired end results has been agreed and set by management it is up to the staff complement or a representative selection to make some concrete plans about how these results can be achieved. The aim is to choose a set of tools to achieve various pedagogical and in-house efficiency gains through better knowledge-sharing and adoption of innovation within a prescribed budget which is measured in terms of how much time or complexity is required to use each tool. Figure 5.3 illustrates three of the cards which may be chosen.

[8] Wilcox, D 'E-laearning, Web 2.0 and games as mud maps' http://www. designingforcivilsociety. org/2007/05/elearning_ web_2.html

Fig. 5.3 Three of the cards which may be chosen in the Social Web game

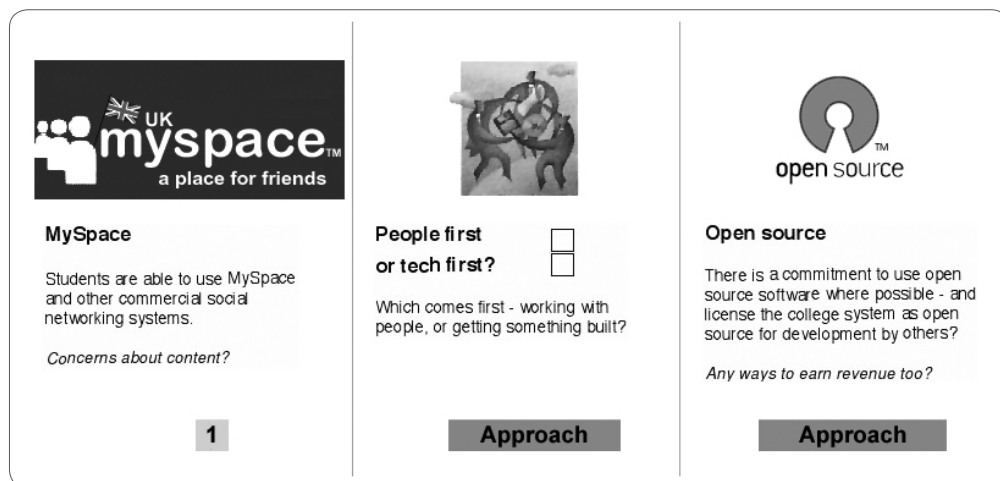Table 5.1 Comparison of the 3 games against GBL criteria

Game Criteria	Mentoring Miss Montfort	Diffusion of Innovation	Social Web
Fantasy	Yes, set in a fictive university	Yes, set in a fictive school	No. Rooted in the participant's own context.
Rules	Yes, controlled by the software	Yes, controlled by the software	Yes but these are adaptable
Goals	Yes, though a satisfactory outcome is a vague concept	Yes, very concrete: 22 adoptions in 2 years or less	Yes though the outcome is open
Sensory stimuli	Low: Text-based	Low: Text-based	Low: discussion based
Challenge	Yes, how to make Simone feel she has some tools to face her next class	Yes, how to get teachers to adopt an innovation	Yes, though it could be interpreted differently by individual participants
Mystery	Yes, the outcome is uncertain	Yes, the outcome is uncertain	Not really
Control	Yes, within the parameters set for each step	Yes	Yes, though you must negotiate final outcomes with your colleagues
Flow	Yes as long as players don't reach a dead end in the maze	Yes, one action leads quickly to the next	Yes because this is a group activity

Application: This face-to-face activity is appropriate for a group of staff from a single institution who want to collaborate on the implementation of ICT integration. It should promote discussion and planning in a way that leads to concrete action and review.

Game play: The game can be played in many different ways. The average session will take three hours. Here is one way adapted to educational institutions which proposes a 5-step approach.

1. Share our understanding of where the college, its students, staff and management are now and then break into three groups each taking one of those perspectives.

2. Take the pack of game cards that represent three factors: possible approaches, development activities, and system building activities.

   • Possible approaches include using only or mainly free web services, using only open source programs and encouraging staff to use Web 2.0 tools.

   • Possible development activities include hiring experts and arranging workshops and events.

   • Potential system building activities include network mapping and building a files depositary.

3. Choose cards that will address the challenges you shared, within a budget of 15 points (development and building cards have 1, 2, 3 points on each representing the level of resource needed to implement them which most often translates into staff time). Organise the cards in a way that enables you to describe to others what you are planning.

4. Then in each group develop a storyboard of what happens from your perspective as a student, teacher or manager - over the coming months and years.

5. Continue the discussion online and offline

The cards are used in steps three and four and involve choosing an appropriate set of tools which do not exceed the effort budget of 15 points.

Game Outcome: The outcome is a concrete action plan based on thorough discussions of the options and their implications and possible consequences and challenges. This is the game with the least structure but the most concrete outcome. Having learned about various ICT tools this exercise fits in the latter stages of the VITAE course just prior to trialing and implementation.

5.5 Value of the games to the vitae approach

Let us now go back to the original list of game attributes to evaluate the extent to which these three games meet the criteria for a good game. Table 5.1 shows that the three games do not meet all the criteria for effective game-based learning. So does this mean that the games lack value for the VITAE approach? This question can be answered through an examination of some of the advantages of game-based learning proposed in the opening paragraph of this article.

Do these games promote personalized learning of the VITAE training content?
In each case the proposed games do follow the needs of the individual especially the first two games which are individualized experiences. Taken altogether these three games do not cover all the learning outcomes of the VITAE course but they certainly add value in the form of experiential learning. The use of any game in learning also calls on the mentor qualities of the game moderators which also adds value to the experience for this specific project.

Are these games realistic and immersive?
This question can be answered in terms of outcomes and presentation. The Diffusion of Innovation game outcomes are based on empirical research according to its developers at Indiana University. Mentoring Ms Montfort is also based on psychological principles.

Clearly in terms of presentation none of the games are particularly realistic. The two online games could be improved to give a more realistic feel with the use of graphics, animation, audio and video. This might increase the time taken to play them but might also make them more attractive to play. The Diffusion of Innovation screen is particularly daunting to take in at first sight. Thus the games are realistic but could be much more immersive by taking advantage of modern multimedia technology.

Do these games provide a safe environment in which to make mistakes?
Absolutely. This could be one of the biggest advantages of using such games since the integration of ICT in education can bring out extremely strong emotions both positive and negative. Even the social media game which results in a concrete plan for the institution allows participants to restrict or amend their plans to meet the points allocation within the game. This is an external constraint which gives participants leeway to restrict the degree of innovation based on the number of points they have left to spend rather than blaming it on any inherent conservatism or fear they may have of implementation.

Conclusion

Although the first two games are aimed at different audiences – schools and higher education – the issues tackled are generally applicable and translate well to vocational education. The first two games could be played individually and asynchronously but the added value of playing them comes in the pre and post game discussion. What is interesting when using games, is interpreting the thinking behind the game creators. So for example in Mentoring Ms Montfort, it is the open and next step questions which get the best results as this is deemed to be good practice in mentoring. The assumptions behind the Diffusion of Innovation simulation include that finding out about and talking with likely adopters is a necessary precondition of adoption as is making use of the existing social networks. These are the codes to crack in order to ensure effective transfer from game to reality in your own individual context.

Clearly these games are just the beginning. If games that are not initially designed to meet the needs of the VITAE project can have learning value then this means that the scope for tailor-made games using the latest technologies to increase flow and realism could reap even greater returns. With the tendency for game making software to follow that of Web 2.0 in making such projects possible through low threshold applications this seems like a practical follow up goal for the VITAE project.

References

Atherton, J. S. (2002) Exercise: Mentoring Ms Montfort: Introduction to Action Maze [On-line] UK; Available: http://www.doceo.co.uk/ment-maze_web/index.html (retrieved 20 May 2009)

Bennett, J & Warnock, M E-learning concepts and techniques, Ch 8. http://iit.bloomu.edu/Spring2006_eBook_files/chapter8.htm#h8_2 (retrieved June 15, 2009)

Caspian learning , Digital Switchover demo (retrieved May 25, 2009)

Csikszentmihalyi, M 'Flow: The Classic work on how to achieve happiness' 1992, Harper & Row

Diffusion of Innovation http://www.indiana.edu/~istdemo/ (retrieved May 25, 2009)

Granovetter, M. (1973). "The Strength of Weak Ties", American Journal of Sociology, Vol. 78, Issue 6, May 1973, pp. 1360-1380. http://www.stanford.edu/dept/soc/people/mgranovetter/documents/granstrength-weakties.pdf

Institute of Play http://p4games.org/node/17 (retrieved May 25, 2009)

Prensky, Marc, at IATEFL 2009-05-13
http://iatefl.britishcouncil.org/2009/sessions/62/q-marc-prensky
(retrieved May 25, 2009)

Teed, R. Science Education Ressource Center, Carleton College http://
serc.carleton.edu/introgeo/games/index.html (retrieved May 25, 2009)

Wilcox, D. 'E-learning, Web 2.0 and games as mud maps' (retrieved June
16, 2009) http://www.designingforcivilsociety.org/2007/05/elearn-
ing_web_2.html

Chapter 6

The VITAE e-portfolio – a catalyst for enhanced learning

Torhild Slåtto

Introduction

The Vitae course for teachers and advisors of VET (vocational educational and training) includes a solid learning "catalyst" in the concept. Through instruction in the use of the PLE (Personal Learning Environment) and the e-portfolio, individual course participants receive a sound stimulus and support to reflect over the course themes, their own efforts and the exchange of knowledge they are involved in. Reflection, specifically, is an important element when working with the Vitae portfolio, and it is particularly effective when utilized systematically, following each individual course module.

The Vitae course itself is thoroughly described in Chapter 2 of this book. This article will shed light on how the e-portfolio can function as a powerful tool in the learning process, and in particular in a course like the Vitae course. The use of many different practical tools may seem somewhat infinite. Metaphorically speaking, venturing into the world of ICT can be likened to the reality facing an immigrant as she establishes herself in another culture. The ICT culture can resound as foreign, impenetrable and technical, but through the Vitae course's stepwise approach and systematic reflection, course participants are aided as they take in this new world. They can become conscious of what they have actually learned, as well as of what they failed to understand and need to review once more. Moreover, participants gain insight into what more they wish to learn. By incorporating time to work with the e-portfolio throughout the entire course, the e-portfolio can function as a solid learning catalyst and stimulus in the course.

6.1 What is an e-portfolio?

An e-portfolio is both a process and a product. The process generally consists of collection, selection and reflection. American Helen Barratt, a veteran and pioneer of working with e-portfolios for students, also likes to add a fourth element to the process, namely celebration. When one has taken a new step along the path of learning, it is important to celebrate!

As a concrete product an e-portfolio, also called a digital competency file, in many ways can be said to be a digitally documented presentation of a person's competency, experiences, strengths and talents. Some are fond of referring to it as "my digital self". In other words, it is a multi-media presentation of "what I know". The documentation can take many different shapes, with text, images, audio, video and combinations of these. Links to different documents are readily used. An example might be a presentation of test results with links to a written exam response that is particularly good. Another example might be a document that shows that the person in question has accepted an award or been recognized for having completed a project in a commendable way.

Elizabeth Hartnell-Young is among those with the longest experience in use of e-portfolios for students. In recent years she has worked at the University of Nottingham. She reports that there one has attempted to explain what an e-portfolio actually is. The conclusion from Nottingham is that an e-portfolio is *'...the processes of planning, giving feedback, collaborating, capturing and storing evidence, reflecting and presenting identities are essential to e-portfolio development, and that these have the potential to develop skills and create knowledge throughout life.'* [1]

6.1.1 Definitions

The word portfolio derives from Latin. Portare means to bear or to carry, and folium is leaf or sheet. With time the word came to mean folder. It is well known among many creative occupations in which one's work is carried in large folders – portfolios. With an 'e' preceding the word it becomes electronic i.e. a digital file. The e-portfolio concept is defined by many actors and to some extent in many different ways. A few definitions are cited here.

IMS Global Learning Consortium's definition is as follows:

> *E-portfolio is a collection of authentic and diverse evidence, drawn from a larger archive, that represents what a person or organization has learned over time, on which the person or organization has reflected, designed for presentation to one or more audiences for a particular rhetorical purpose.* [2]

The French e-learning organisation ElfEL has been strongly committed to the idea of an "e-portfolio for everyone" and has arranged a number of international conferences on the theme. ElfEL defines it as such:

> *An e-portfolio is a personal digital collection of information describing and illustrating a person's learning, career, experience and achievements. E-portfolios are privately owned and the owner has complete control over who has access to what and when.* [3]

Helen Barrett states in her definition that:

> *An electronic portfolio provides an environment where students can: collect their work in a digital archive; select specific pieces of work (hyperlink to artifacts) to highlight specific achievements; reflect on the learning demonstrated in the portfolio, in either text or multimedia form; set goals for future learning (or direction) to improve; and celebrate achievement through sharing this work with an audience, whether real or virtual. When used in formative, classroom-based assessment, teachers (and peers) can review the portfolio document, and provide formative feedback to students on where they could improve.* [4]

6.1.2 Different varieties of e-portfolios

Many distinguish between a *competency file/e-portfolio* and a *learning file/evaluation file*. Competency file or e-portfolio is often used to refer to

[1] Elizabeth Hartnell Young: E-portfolios for Lifelong Learning in *Mapper i digitale læringskontekster [Files in digital learning contexts]*, Norgesuniversitetets skriftserie nr. 2/2008

[2] MS Global Learning Consortium: ePortfolio Best Practice and Implementation Guide 2005

[3] www.eife-l.org

[4] http://electronicportfolios.org/web20.html (May 6, 2009)

something more long-term that stretches from infancy throughout the course of life, such as it is presented in the definition from IMS, for example, *'… represents what a person or organization has learned over time, … '*. The portfolio is an apt tool in lifelong learning, and it is accumulative over time. By retirement it can be quite extensive. A learning file or evaluation file is often used interchangeably with e-portfolio and is linked to a specific stage or area of studies, and has a clear function with respect to an instructor's evaluation of student work, and often for student peer review. Barrett states this in the following way: *'When used in formative, classroom-based assessment, teachers (and peers) can review the portfolio document, and provide formative feedback to students on where they could improve'*. In Norway this is often called 'file evaluation'.

In this article we somewhat disregard the life-long perspective and discuss the e-portfolio within a more limited space of time, in relation to the Vitae course. Of course, we recommend that one preserve both reflections and results from the Vitae course and add these to a larger e-portfolio storage base, such that it can be brought forth and presented when needed.

While learning files are part of a dynamic process, a competency file/e-portfolio is more static in the instant it is presented, and until a new version is created.

6.2 The e-portfolio as a process

The e-portfolio process is not necessarily easy, but there turns out to be a lot of learning involved in this process.

6.2.1 Collection

The first step in working with one's e-portfolio is to collect raw materials, so to speak, to document one's own accomplishments of various sorts. Material from learning files and evaluation files also provide useful materials for the e-portfolio. While Barrett refers to a digital archive, which can generally be extensive, Søren Langager at Denmark's Pedagogical University uses the expression container. He uses the metaphor of the container to express the notion that there should be plenty of room to store materials, and he shows that semi-automated coding of the material is useful, such that it is possible to locate materials at a later time.[5]

[5] Den nordiske portfolio [The Nordic Portfolio], Nordport, Folkuniversitetet 2007

During the Vitae course, participants will likely produce a number of works that can be interesting to store in the "container", to be presented on a later occasion, perhaps when one returns to the workplace and shares with colleagues what has been learnt. The course certificate itself should also be placed in storage for later use.

6.2.2 Reflection

Reflection is important to all learning and when performing work-related tasks. Systematic reflection is provided for in the Vitae course following each of the eight modules the standard course consists of. For each new 'piece' of competence one acquires and places in the e-portfolio collection/container, an evaluation or a reflection should take place over what it has meant for one's own learning. In this way, one becomes conscious of how learning has taken place and can identify possible gaps in one's competency. Most specially-designed programmes for building e-portfolios include an individual column for reflection.

Within the Vitae course, work with the e-portfolio is first and foremost based on reflection.

6.2.3 Selection

Collection and reflection are elements of the portfolio work which are carried out individually. At the moment the need for an e-portfolio arises, a selection must take place. One must choose which stored "materials" should be included in relation to the target group in question or current purpose for which the e-portfolio shall be presented. The student selects his/her best work and essays which he/she is satisfied with and wishes to have evaluated by the teacher, examiner or fellow students. Another example of a context in which the e-portfolio can be used is as a presentation of one's own competence in conjunction with a job application. It can also be used as documentation of competency and skills when being considered for an internal assignment. In these examples, somewhat different materials will be useful in the presentation. It is a matter of choosing the relevant elements.

6.2.4 Presentation

Søren Langager speaks of a "gallery" or presentation portfolio. One presents what one knows or has done, as a digital gallery. Visual artists present their images and musicians can provide samples of the music they have written. When one presents competency and skills in project management or use of ICT in training, a different type of gallery takes shape. The presentation itself or display of what one has learned through the VITAE course is itself a challenge for participants after the course is complete. It is plausible that the course participants have produced a blog, a wiki or a Movie Maker production that might be an example, a sample, of what the individual is actually capable of. Such products can operate as a "gallery" to be shown to colleagues or others.

6.2.5 Ownership of one's own competency file/e-portfolio

Competency files/e-portfolios differ from company-specific competency analysis data or *competency profiles* that companies establish for their own employees. The e-portfolio is created by the individual and is personally owned by him or her. The individual decides what it shall include, how it shall be structured and who shall be given access to it.

Fig. 6.1 Online teachers in the Vitae course in Oslo. Photo: Torhild Slåtto.

6.2.6 Open or sealed

Some choose to publish their e-portfolio as a means of marketing them-
selves, for example in conjunction with a job search or when applying
for an assignment. When publishing the competency file on the internet,
questions arise regarding copyright, personal integrity, etc. Almost unlim-
ited storage capacity and abundant multi-media possibilities can quickly
result in a competency file/e-portfolio that is far too comprehensive, with
many links and a lot of hypertext, such that it becomes time-consuming
to evaluate it. It can be tempting to include extensive multi-media con-
tent, but this should be weighed in relation to response time. The digital
opportunities available can lead to a presentation becoming too "crea-
tive", and difficult to navigate. All in all, one should use instruments and
effects with caution, such that they do not overshadow the overall picture
and accessibility.

6.3 From standardized e-portfolios to Web 2.0

Ten-fifteen years ago several companies developed e-portfolio software
(fig. 6.2) and many of them are still in use. One of them was iWebfolio.
Another one is Aspiro, developed by young enthusiasts in Norway. These
platforms were commercial and licensed. The user gained access by
ID and password to a particular template for filling in one's certificates,
experiences etc. The e-portfolio company hosted the information, and the
user decided how much of the material should be open, and who could
get access to what. Through links more information was provided. It was
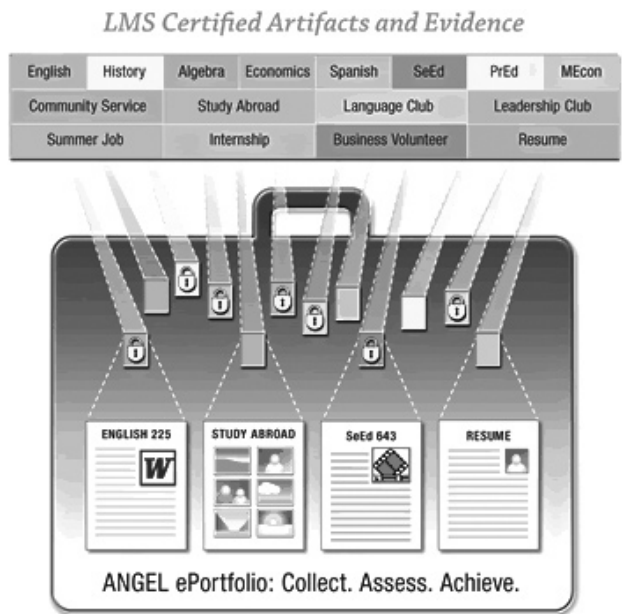a rather simple way of making "one's digital self". It was not easy to pick

Fig. 6.2 Another example of recently developed software is the ANGEL ePortfolio.
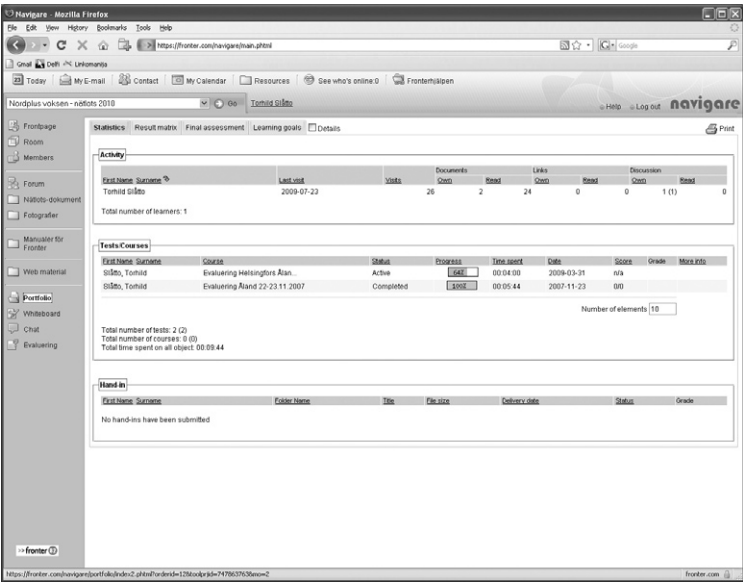(http://www.angellearning.com/products/eportfolio/learner_experience.html)

Fig. 6.3 Screenshot of an e-portfolio in the Fronter LMS

the best software, or to choose to make one's own design. Helen Barrett
talked about e-portfolio software in her blog in 2004[6]:

*'Today I received another request for recommendations for e-portfolio
software in a K-12 school. I probably get one request a week, and my
answer is always, "It depends!"'*

6.3.1 Integrated in the Learning Management System

Many schools and universities have developed their own e-portfolio
systems. As the e-portfolio is used in many schools for assessment the
Learning Management System companies started to integrate an
e-portfolio in their platform a few years ago (fig. 6.3).

6.3.2 A new era

The advent of Web 2.0 has ushered in a new era for e-portfolios. *'Web
2.0 tools facilitate self-expression, reflection, online interaction and feedback'*,
Helen Barrett says. She has herself proved how exciting and rich in infor-
mation such an e-portfolio could be. See her own e-portfolio (fig. 6.4)
made by means of GoogleDocs http://sites.google.com/site/eportfolios/
Home/my-portfolio (05.06.2009).

To try to make an analysis of different software that is used for e-portfo-
lios, Regis University has made a list of e-portfolio tools. They have listed
the clients, the type of use, a brief description, price, feature analysis.
Finally they have given recommendations. See http://academic.regis.
edu/LAAP/eportfolio/software.htm (05.06.2009).

6.3.3 What is a European Language Portfolio?

A European Language Portfolio (fig. 6.5) is a document in which those
who are learning or have learned a language - whether at school or
outside school - can record and reflect on their language learning and cul-
tural experiences. See http://www.coe.int/T/DG4/Portfolio/?L=E&M=/
main_pages/introduction.html (05.06.2009)

It is explained that 'The portfolio contains a language passport which
its owner regularly updates. A grid is provided where his/her language
competences can be described according to common criteria accepted
throughout Europe and which can serve as a complement to customary
certificates.'

6.3.4 E-portfolio and digital storytelling

A trend nowadays is to make one's e-portfolio into a digital story. The
method of digital storytelling enables us to present the facts about
ourselves along with elements of entertainment by using creative illustra-
tions and pictures. This could be a wonderful tool in certain studies and
job applications and definitely less useful when it comes to job applica-
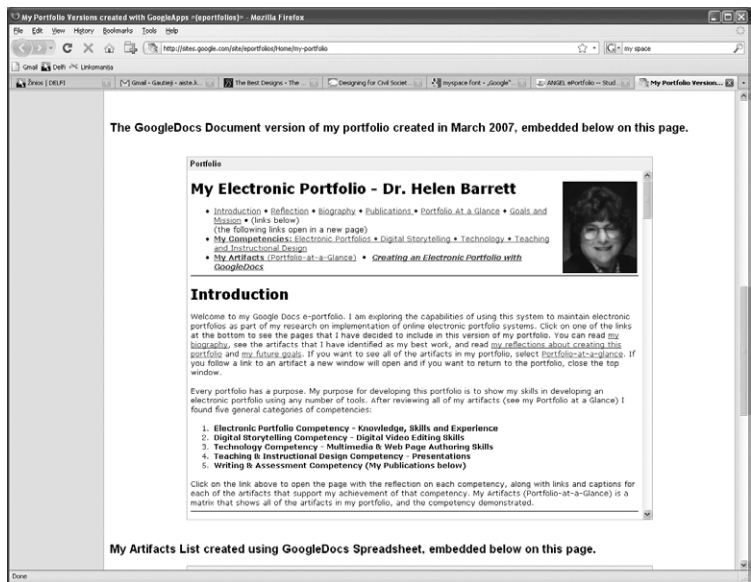tions in more conventional settings.

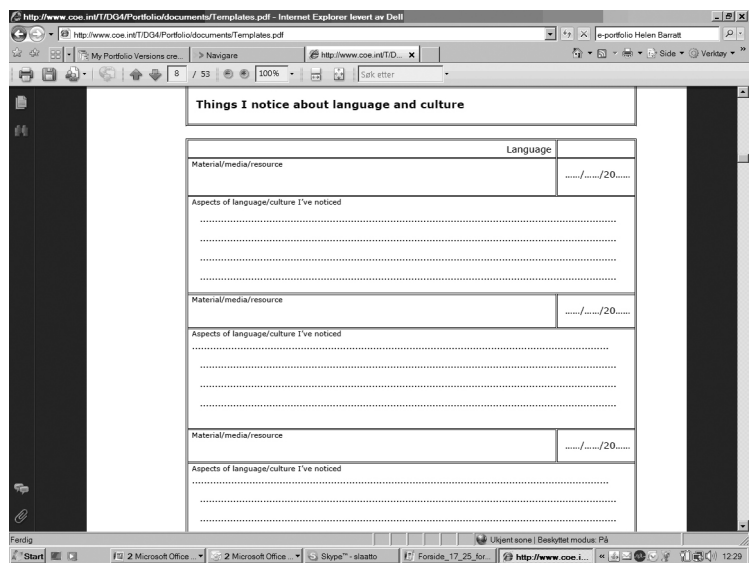Fig. 6.4 A screenshot of Helen Barrett's e-portfolio made by means of GoogleDocs.

Fig. 6.5 A screenshot of one of the pages of the European language e-portfolio, showing reflection about language and culture.

6.4 VITAE portfolio

The Vitae course is consciously organised for working with one's own e-portfolio. Seen in relation to the e-portfolio concept as it is used, e.g. by Helen Barrett, the Vitae course is a place to collect materials for selection and reflection. For the Vitae course, work with the e-portfolio is closely linked with learning outcomes. It is used as a tool to strengthen learning outcomes. Reflection is central. In addition, the best of the Vitae reflections might be included in a larger more comprehensive competency file/e-portfolio.

6.4.1 Eight modules and 15 points of learning outcomes

The eight modules of the Vitae course are structured for reflection following each of the modules that are completed. Reflection, as the meaning of the word implies, is open and unrestrained, but it can be useful to have some structured questions directed specifically at the learning outcomes of the course, including several 'helpful questions'.

The learning outcomes of the Vitae course are summarized as one main point and 15 sub-points. The main point of learning outcomes states that: 'I can choose relevant resources using the VITAE approach for any planned learning activity including ICT tools where these are the most appropriate.' Learning outcomes are formulated as 'Pedagogical considerations' and 'Professional development and mentoring'. Space is also reserved for reference to evidence, such as a special blog or video clip. The 15 learning outcomes are presented in table 6.1.

To further support course participants with their reflection work, learning outcomes are identified for each course module. In the very first module, which covers the personal learning environment and ICT, course participants are expected to have created a plan, and the learning outcome is expressed in the following way:

'I have made a plan for my continuing professional development in the appropriate use of ICT in my teaching.'

The learning outcome of this module can be evaluated on the basis of the first six points in the list of learning outcomes above.

To assist in reflection over learning outcomes, the Vitae course has formulated helpful questions for the course participants. For example, in module five, the following questions are posed:

1. Am I clear about the aims of the tasks of the module?
2. The most difficult thing about this module was ...
3. How did you feel about the feedback you received from your colleagues?
4. Can you connect this module with other teaching situations where you can apply what you have learned?

Table 6.1 VITAE learning outcomes

Pedagogical considerations:	**Evidence Available?**
1 **Information sources:** I can help my students find and evaluate relevant information including pictures, maps, sound and video from ICT sources as well as traditional sources. (eg RSS, Wikipedia)	
2 **Information storage:** I can help my students store information in digital form such as blogs, wikis, podcasts or portfolios (i.e. it is accessible at home, on the move and to external experts/advisors)	
3 **Communication:** I can help my students communicate synchronously and asynchronously through text, voice and video	
4 **Documentation:** I can author online spaces to document learning events and facilitate student use of this material afterwards. (e-portfolio, screencasts, class blog/wiki)	
5 **Safe use:** I can help my students use online applications safely (eg online identity, privacy, trustworthiness)	
6 **Group work:** I can facilitate online group working using methods such as complex instruction	
7 **Learning:** I can identify the learning outcomes expected from the use of specific ICT tools in a specific learning activity.	
8 **Assessment:** I can identify how the learning outcomes of ICT related activities will contribute to student assessment and use appropriate rubric tools to record this.	

Professional development & mentoring	
9 **Planning:** I have made a plan for my continuing professional development in the appropriate use of ICT in my teaching.	
10 **Documentation:** I have documented the use of an interactive internet tool so that others can benefit from my experience	
11 **Sharing:** I have tried at least one way of sharing my ICT experience with colleagues either internally or externally.	
12 **Local context:** I have identified the possibilities and limits to the use of interactive Internet tools in my institution.	
13 **Portfolio:** I have started or added to an existing e-portfolio	
14 **Evaluation:** I have evaluated the outcomes of my amended teaching session and documented this in my e-portfolio.	
15 **Mentor plan:** I have embarked on peer mentoring with at least one of my colleagues.	

[7] LIPS (Language and Intercultural Preparation for Students) http://www.eu-lips.de

[8] Yngve Nordkvelle, Anne Mette Bjrøgen og Yvonne Fritze: Fra digitale mapper 1.0 til 2.0? i *Mapper i digitale læringskontekster,* Norgesuniversitetets skriftserie nr. 2/2008

[9] Rekkedal og Qvist-Eriksen, 2004

[10] Olga Dysthe og Knut Steinar Engelsen i Bruk av mapper i norsk høgare utdanning [Use of files in Norwegian higher education] i *Mapper i digitale læringskontekster,* Norgesuniversitetets skriftserie nr. 2/2008

This approach to the compilation of an e-portfolio is based on the e-portfolio designed within the European project LIPS[7] (Language and Intercultural Preparation for Students) in which it was thoroughly tested on several cohorts of students.

6.4.2 The e-portfolio from the student's perspective

In a Norwegian study of students' use of e-portfolios (evaluation files)[8], a majority of participating students reported that they understood the goal of digital files to be the actual learning process involved in working with the files. They emphasized that their work was evaluated along the way by instructors and fellow students. The study showed that the students regarded work with the files as helping them become more conscious of their own learning. The files helped them to work evenly throughout the year and collect essay responses and evaluations until the time of the final evaluation and grading at the end of the course. Reciprocal student peer review also strengthened the learning process among the students. They felt that they needed to familiarize themselves with the materials more thoroughly in order to provide a correct evaluation of their fellow students, something that also benefited them as they actually learned more through working with others' responses to assignments. For some of the students who took part in the study, peer review was voluntary, while it was obligatory for others. Otherwise the study revealed that the students desired ample responses from the instructor. This corresponds with other studies of internet-based distance learning and education which show that students feel that responses from the instructor are a very important element in their studies.[9] Many of the students stated nonetheless that their fellow students' responses were more useful than those of the instructor, because fellow students' comments were directed more towards providing advice and guidance while the instructor could be more authoritative.

Results from the study of Norwegian students shows that working with e-portfolios (digital files) provides a valuable stimulus for learning and in the learning environment. However, several studies show that it is time consuming and for some this is a barrier to taking advantage of digital files.[10]

Within the context of the Vitae course, there is every reason to believe that an emphasis upon working with the e-portfolio and peer review within the course can be an effective tool for strengthening the learning process and assuring participants that they have indeed learned what they have set out to learn. For Vitae course participants who are themselves teachers, there is yet another dimension. They will be mentors for their own colleagues and pass on to others the knowledge they gained through the VITAE course.

6.4.3 Digital files for qualifying lecturers

At the University College of Oslo digital files are used in the qualification of lecturers in conjunction with a course in the Senior Lecturer program

called 'Profiles!' (In Norwegian, Profiler!). Course participants create digital files according to a predetermined model. A documentation file is created, which includes 'the documentary basis or the underlying documentation that supports the applicant's profile. This documentation is the result of a long and demanding task of classifying, organizing and analysing one's overarching qualifications.'[11] This means of working with one's own qualifications can be viewed in parallel to the Vitae course's e-portfolio approach.

[11] Vibeke Bjarnø og Helge Høivik: Digitale mapper som læringsarena for førstelektorkvalifisering [Digital files as learning arenas for qualifying senior lecturers] i Mapper i digitale læringskontekster, Norgesuniversitetets skriftserie nr. 2/2008

Final remarks

Without a doubt, students and course participants who work with their own digital files gain greater benefits from their learning experience and become more conscious of their own learning process. According to several studies (see e.g. Dysthe & Englesen, 2008)[12] the major challenge in using digital files is time. It takes time. This is also true of the VITAE course. The participants in the pilot version of the Vitae course were given too little time to work with their e-portfolios. The challenge has been to conduct the course in a space of time that allows for working with the e-portfolio. When the course has been conducted over two or three days plus two online periods, the schedule was tight. Reflection largely took place orally or in plenum. In future Vitae courses it is strongly hoped that reflection over personal learning can take place within a systematic framework such as that which the standard course is equipped with, possibly by replacing education on the use of some web tools, or preferably by expanding the timeframe for the course.

[12] Olga Dysthe og Knut Steinar Engelsen i Bruk av mapper i norsk høgare utdanning i Mapper i digitale læringskontekster, Norgesuniversitetets skriftserie nr. 2/2008

Fig. 6.6 A vital part of the Vitae team. Photo: Torhild Slåtto

Chapter 7

Community-based mentoring and innovating through Web 2.0

Helen Keegan and Cristina Costa

Introduction

'Higher education must place students at the centre of its focus within a lifelong learning perspective so that they are fully integrated into the global knowledge society of the twenty-first century. Students must be considered as equal and fundamental partners and stakeholders in their own education with the right to organize themselves as they see fit within the context of their educational institutions, systems and communities.'
(UNESCO 2002, p.13)

Since the arrival of what is commonly referred to as Web 2.0, social software platforms and social networking technologies have become part of the learning landscape both for those who learn formally within institutions, and for those who learn informally via emergent web-based learning communities. The challenges to traditional educational roles and structures are keenly felt by many learners and tutors; the teacher is no longer necessarily the sole authority, as learners can access many (often contrasting) well-informed viewpoints online. The above quote, while focusing on the 'traditional' student, can also be said to apply to all those involved in teaching and learning; for both tutors and learners, there are real challenges in terms of the organisation and navigation of online information sources, both in terms of the amount of information available, and the reliability/authority of that information.

In light of these new challenges, the role of the teacher has undergone a fundamental shift. It is no longer enough to be a purveyor of knowledge; the teacher must also act as a facilitator who guides the learner through their learning journey, helping them to negotiate information along the way. This social constructivist pedagogy has a democratizing influence in terms of valuing informal learning and both independent and peer learning, as these are seen as being core aspects of lifelong learning and learning to learn. As learning collaboratively online becomes increasingly predominant, new skills in communication and collaboration are required in order to use new technologies effectively, develop real digital literacy and other 21st century skills.

It is against this backdrop that the VITAE partnership came together to develop a blended course which effectively trains vocational train-ers in the use of Web 2.0, taking an intercultural, mentoring approach. Mentoring as a teaching/learning approach is key to the project, as it is believed that a focus on learner-centred knowledge construction and the social aspects of the learning process are vital for trainers in the use of Web 2.0 who are themselves learning new skills in terms of digital litera-cies and technologies, in order to pass on those skills to others. A range of learning and mentoring activities have been implemented across a series of pilots across four countries (see chapters 2 and 3 for a fuller descrip-tion), using a variety of social networking and social software platforms through an iterative cycle of course development. Data has been col-

lected from each pilot, highlighting commonalities and differences, issues and factors for consideration.

In this chapter we outline our approach to internal and external community formation across multiple platforms, describing the challenges in sustaining online communities where membership is fluid by nature. We explore the tensions in relation to mentoring in practice, in terms of the provision of an overarching VITAE course template on the one hand, and allowing for individual needs and/or training requirements on the other. We also consider taking the 'breadth vs. depth' approach, again linking this to the needs of the individual while discussing personalized, learner-centred, flexible modes of delivery, asking whether these are in fact more suited to those with some degree of techno-literacy and experience. We then outline the linguistic challenges faced when establishing and/or participating in an intercultural learning community, followed by an exploration of the organisational tensions which may be faced when implementing a non-traditional form of training (i.e. online mentoring) into a traditional educational environment. It is hoped that our experiences and lessons learned will help others who are interested in establishing online learning communities with mentoring as their focus.

7.1 Background

7.1.1 Innovative learning approaches and the role of the tutor

Within an educational context, the rise of what is commonly termed 'Web 2.0' has resulted in increased awareness of the opportunities for creative and innovative approaches to learning that are afforded by network technologies. Increasingly, it is being argued that more than focusing on teaching we need to concentrate on learning (Barr & Tagg, 1995; Babic, et al., 2008), hence a shift in education is taking place in which the learner is acquiring a central role when it comes to the processes through which knowledge is constructed. Within these learner-focused models, greater emphasis is also put on the social aspects of the learning process. A global society characterised by rapid technological expansion relies greatly on communication and collaboration to keep moving forward while the use of different communication channels is one of the most efficient strategies supporting collaborative learning environments. While access to efficient communication and information technologies is crucial, the roles of those who open up the communication channels for meaningful interactions are no less relevant. On the contrary, the added value of communication technologies, and how these are adopted to bridge meaningful connections, relies on human intervention.

The role of the teachers, or that of the trainer, is a core part of the learning approach, and in today's world the duties of the educator may need to be reinvented, as much in form as in content. In moving from an instructivist model of teaching and learning (a teacher-centred model where knowl-

edge is seen as existing independently of the learner and is transferred to the student by the teacher) to a constructivist view (a student-centred model where the learner constructs – and co-constructs - knowledge from their experiences), there is a shift in the perception of the role of the teacher from one who 'delivers' knowledge to one who facilitates learning, acquiring the status of a mentor who mediates conversations through exploratory learning and shared experiences. This view of the educator of the 21st century is not that of one who simply lectures, but rather one who listens and engages, allowing individuals to develop their voice while learning in an inclusive community-like environment, comprising of people with different backgrounds and varied learning stories. In short, the 21st century educator is an experienced guide who paves the way for the individual's learning path, and context assumes an essential position in the learning dynamics (Dias Figueiredo & Afonso, 2006). With regards Web 2.0 technologies, an efficiently set up and maintained context will allow user-generated content to emerge and to develop as evidence of meaningful communal learning practices. An environment that invites the sharing of practices, and promotes collaborative learning instances, while also valuing individual participation and needs has a better chance of sustainability in the long run (Stuckey & Smith 2004; Sandusky, 2005). Accordingly the role of the mentor is crucial, not so much for the knowledge he/she might be able to provide, but mainly for all the knowing he/she might be able to encourage. Initiating a contextual learning process based on peer interaction is not a simple task. It depends on one's mentoring skills, as it does on individuals' own engagement to become involved in their learning as well as in the community's knowing.

The VITAE project aims precisely at such a philosophy: learning as an active process, and teaching and training as an engaging, mentoring-based community environment, where the role of the teacher is still vital, but where the role of the student is no less important for a learning atmosphere to be established. In fact, mentoring teachers and trainers in this new approach to learning is core to the mission of the project. In the VITAE project two different approaches to the mentoring component co-exist as part of the approach of transferring these new perspectives of teaching and learning to practice. It was envisaged that one of the modules of the VITAE course focused on mentoring, giving its participants the philosophical background of such an approach, thus allowing them to reflect on mentoring and what it means to them. However, the most effective side of the mentoring process of the VITAE course is perhaps the fact that mentoring is also a vital part of the entire teaching and learning approach, making it easier for individuals not only to relate to it but also develop a deeper understanding about the mentoring process, as they have experienced it first hand as VITAE learners. Learning about new technologies in the context of the classroom is complex. Altering educator's long term practices and approaches to their role in the educational system is probably even harder. The changing process is often lengthier and more challenging than we usually anticipate. While most

of the contemporaneous literature urges for a rapid change, we need to allow time for such ideas to mature; to allow teachers to put them into practice with confidence as desired for a longer term effect and change in the educational realm. Hence, more approaches such as that taken by VITAE need to exist – in an ideal world, their projects' life span would also be longer so as to extend the effectiveness of its purpose. However, as new approaches are increasingly being adopted through shorter-term initiatives underpinned by a widespread recognition of the value of ICT in teaching and learning, we can expect to see attitudinal shifts and deeper embedding of innovative pedagogies in both formal and informal learning situations. In the following section we describe some of the declarations and reports which are driving the move towards widespread use of ICT and web-based learning in Europe.

7.1.2 ICT competences and lifelong learning

In recent years, European Technical and Vocational Education and Training (TVET) institutions have, more or less systematically, sought to introduce information and communication technologies (ICT) and net based learning into their formal teaching. As discussed in chapter one, few have come far in implementing innovative learning approaches, despite recognising that it is crucial to start using existing and emerging technologies to create new value for learning. It is increasingly important for teachers to keep abreast of technological developments as young people are likely to require teaching to be delivered using tools and methods which are already familiar to them. Furthermore, the Lisbon and Copenhagen declarations call for the use of new technologies (including in the teaching offered by TVET institutions) but in spite of all the development work which has been carried out in for example LdV[1] projects in most European countries, these have not resulted in actual mainstreaming of the new approaches. In the report 'Education & Training 2010' The Council and Commission of the European Union describe the need for teachers to change their role from being a 'holder of knowledge' into a human intermediary who coordinates and manages the means of accessing and acquiring global knowledge. The report gives the teacher a key role in the process of building a knowledge-based economy, but also acknowledges the present lack of these skills in schools and the difficulties in recruiting teachers with these skills. The report calls for more education and continued training for teachers to help them 'develop innovative and effective pedagogies adapted to the individual needs of learners.' The lack of ICT skills and e-readiness among teachers in Europe is also identified in the report made by Ramboll Management for the EU Commission in November 2005 (The use of ICT for learning and teaching in initial Vocational Education and Training, Final Report to the EU Commission, DG Education & Culture). If the EU is to become the most knowledge based economy in the world by 2010, as called for in the Lisbon declaration, teachers will be key persons in the process. Therefore they have to have the appropriate skills. Increased ICT competences will increase the reputation of TVET institutions, which again will make it easier for those

[1] Leonardo da Vinci is part of the European Commission's Lifelong Learning Programme which focuses on vocational training and aims to build a skilled workforce across Europe, funding projects which support the exchange of best practice, increased staff expertise and the development of learners' skills.

institutions to recruit the kind of staff they need and will make it possible for TVET institution teachers to create learning environments which are open and accessible to everyone and which therefore can assist in creating a tradition of lifelong learning in the EU.

7.1.3 21st century skills and new pedagogies

It is against this background of increasing ICT competences in order to facilitate a culture of lifelong learning that the VITAE partnership has developed a Web 2.0 teacher trainer course, taking a mentoring approach to developing 21st century skills within an intercultural online learning community. The VITAE approach begins by assessing the present ICT/e-education skills of teachers, before planning individualised continuous training matching the needs of the individual, enabling teachers to make use of the newest ICT tools (e.g. blogs and wikis) and Web 2.0 to create learning environments which are open, attractive and accessible to everyone. By enabling teachers to integrate ICT in their teaching in order to develop innovative and effective pedagogies adapted to the individual needs of learners, traditional classroom teaching can be transformed into new learning formats. One of the main goals of the VITAE project is to encourage teachers who are frontrunners as regards online facilitation and digital literacy skills to become mentors for colleagues who have not yet started this process, through the sharing of knowledge, e-materials and experiences through virtual fora, between 'experts' and novices alike, supporting active involvement in the process of reflection and interpretation.

The meta-learning aspects of the VITAE project make all European citizens a target group of the project. Because of the exponential growth in new knowledge, we all have to learn for life and in a way we can combine with our working life; skills which have to be acquired. Learning is a social process which does not have to take place in an institution but which is easily delivered to our homes or our workplaces or in virtual learning communities, and in all situations learners can assume various roles ranging from pure learners, via moderators, mentors (peer learning) to experts and even lecturers according to the learning situation. The flexibility being offered by the VITAE approach to teacher training in the use of Web 2.0 technologies allows participants to individualise their teaching to cater for special learner needs, to cope with different learning styles, to plan collaborative learning projects, to make use of the surrounding world and to include experience-based learning methods in their teaching. All this means more tailored, personalised and engaging teaching for the single learner, with a strengthened emphasis on didactics allowing for individuality in learning styles and including new pedagogy. Alongside the mentoring approach to training the teachers, the other core aspect of the VITAE method is that of nurturing online communities of practice where experiences are shared across cultures and languages. The VITAE communities – that is, the 'internal' project community and the wider community of VITAE participants and mentors – will be explored in this paper. We ask: how to transform an online space into a learner-centred

environment, and cultivate it to eventually have the status of an intercultural community?

7.2 Mentoring in an intercultural community

7.2.1 Internal and external community formation

Evolving into an intercultural community is an implicit outcome for the VITAE project as part of its collaborative nature and partners' diverse cultural backgrounds. In this sense, we can even say that two parallel communities have emerged as part of this activity. On the one hand we have an internal community, composed of the different members of the project, who congregate in a private space to work on the development of a joint project. Some of these will also assume the role of the mentor while facilitating VITAE's online courses and its community space. The internal group has already developed communication habits, such as monthly online meetings and use of a discussion forum to report about national developments of the project. On the other hand, we have a public, open space which aims to offers learners of European background, or beyond, if possible, interactive learning opportunities in the field of Education and Technology Enhanced Learning (TEL).

Communal environments where people can congregate to learn, share ideas and engage in socially driven learning opportunities are crucial to the development of a sense of belonging to a given learning community. With the emergence of free online spaces and tools, the setting up of learning spaces has become more accessible than ever before. The creation of such environments is no longer necessarily bound to institutional
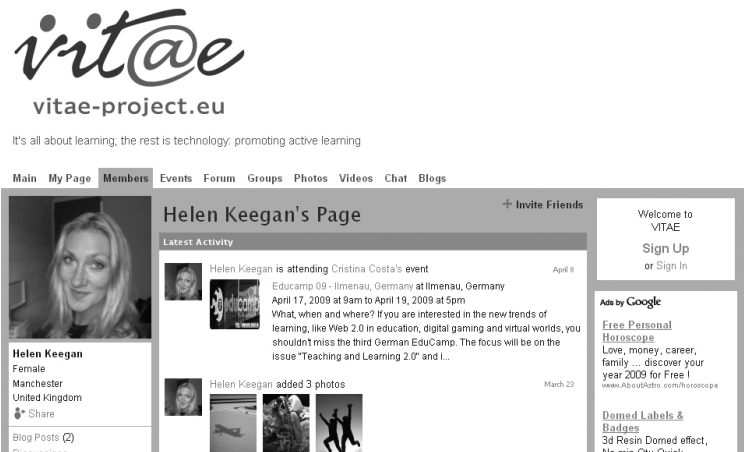
Fig. 7.1 Ning profile page

consent. The authority of such decisions is now distributed. Individuals seeking to take ownership of their learning activity can easily develop a pro-active role. Autonomy is one of the most important characteristics of learning in a digital age. Nevertheless, this freedom to gear one's own learning, create and join newly formed communities and networks has led to a rapid increase of numerous learning spaces, which have drastically changed the online learning landscape, as well as the way learners participate in it. That is probably the most radical change of the first decade of the 21st century. The learning community has never grown so close together, but it has equally never been as distributed as it is now. The teacher of the 21st century is meant to be networked (Couros, 2009) and also a networker, in their mission of mentoring and learning with others.

It was with these ideas in mind that the VITAE project decided to create a free communal place which individuals could join and also realise the potential of such an approach as part of their future teaching and practice with ICT. The platform chosen was Ning, an online tool that allows individuals to create their own communities/Social Networks. There were several reasons for choosing Ning as our online community service. Firstly, it was one of the most user-friendly, online spaces available. Secondly, the setting up of the site was free of cost and this was also seen as a crucial factor, as it meant VITAE participants would also be empowered to create their own community spaces for their own teaching and learning purposes. Thirdly, it enabled the easy creation of groups of interest within the larger community. Finally, it also allowed the easy aggregation of content from other websites and networks individuals might belong to both in communal zones, and especially in the personal page (fig.7.1). Giving people the opportunity to create their individual profiles and personalise their own 'learning corner' within the wider community was also seen as an important aspect to give the single individual a voice.

While members of the VITAE project team are all members of the Ning, for the purposes of the internal project partnership a closed Moodle has been created (fig. 7.2), and it is there that the partners work at a managerial level, hosting ongoing internal project communications. It works as a shared repository of ongoing activities and sporadic reflections concerning the project. However, it is in the monthly online meetings, bridged through online conference platforms (Horizon Wimba and Skype) that the interactions amongst the members seem to become more meaningful for the individuals, and also more fruitful in terms of the maturing of ideas. This might be related to the tone associated with each tool, and also with the purpose that is unconsciously attributed to them: the Moodle site is regarded more for administrative reasons whereas the conference platforms seem to be the place where most of the debating of ideas and presenting of experiences happen. The second approach seems to corroborate more with what we find to be one of the successful key-factors to the transformation of online spaces into learning environments: the conversational atmosphere, based on the sharing of personal issues

Fig. 7.2 Internal and external community formation
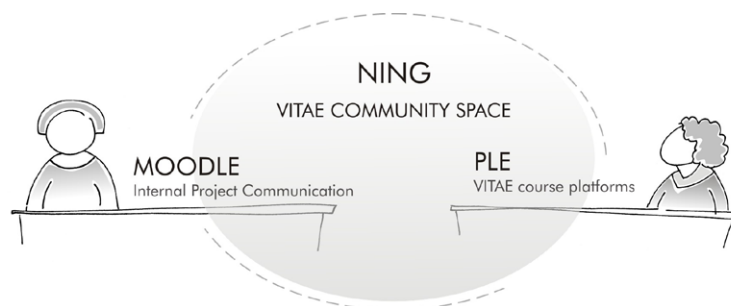
and perspectives – the social aspects which are so crucial to learning online. So the question was then how to transform a VITAE place into an environment, and cultivate it to eventually have the status of an intercultural community.

Consequently, for the public community and mentoring hub we opted for Ning (fig. 7.3) as it is being widely used in the context of connected learning and community building by an increasing number of educators. Our starting approach is to prime for simplicity, although the tool also offers some flexibility for the personal and collective spaces to be augmented with a more complex technological structure – if the user wishes - through the use of widgets and embedding of other web tools. Yet, the technological set up is in no way the focus of this (or any) mentoring project. The technology is approached merely as a platform-bridging communication; as an efficient channel. The effectiveness of this initiative, however, will depend on the human interaction. The learning conversations participants are invited to join, as well as the interactions spontaneously started by peer initiative in order to explore TEL related issues are our focus. Thus, the aim is to progressively cultivate a friendly atmosphere augmented by conversational learning episodes, directly correlated with the members' diversified needs and realities. By taking this approach, we hope to be able to address intercultural issues in context.

7.2.2 The multilingual learning community

The fact that the community is open to a pan-European audience, featuring interaction in different languages, is one of the challenges we face despite its intercultural value. How to bridge cross-cultural conversations when language can be a determinant barrier? That is an issue we consider we have solved with an alternative, rather than with an answer. It was clear from the beginning that translating conversations was not a realistic possibility. It could constrain the pace of interactions and it would also be a cost the project was not prepared to take. Creating Learning Clusters on partners' own accord, however, seemed to open up new opportunities for the emergence of a multi-lingual community. Learning groups have

been created to host national initiatives, such as the partner's mentoring courses that are delivered as part of the VITAE project's objectives. This has started generating considerable activity within the network site in several different languages. Although the Learning Clusters have started as part of timed mentoring sessions, these are not restricted to the official course members, nor will the user-generated content be archived at the end. The interaction spaces will stay open and ongoing activity will be stimulated. Above all we aim to cultivate a communal spirit of sharing and co-construction of an inter-cultural resource. It is also in this direction that some of the partners have been establishing networking bonds with other projects and related initiatives, focusing on the intercultural benefits of such inter-relationships for all parties involved. Among them is the collaboration with the Network of Trainers of Europe, which has been invited to take part in our mentoring initiatives. Access to other open initiatives such as those hosted by the EVOLVE community http://www.evolvecommunity.org, and the Educamp09 pre-session online http://educamp.mixxt.de also provided interconnected, also provide multi-cultural learning opportunities.

In recognition of the value of connecting and collaborating across networks, and the distributed nature of online community due to participants having multiple membership of many online networks (e.g. Webheads, Trainers in Europe, Cabweb, JISC-Emerge) and platforms (e.g. Twitter, Flickr, Slideshare), we began to revise our expectations of what we could realistically expect from our online community.

Fig. 7.3 Ning community page

The VITAE project had set forward the creation of an online community as one of its goals, its primary purpose being to enable a wider audience to benefit from the project approach, despite the fact that they might not have been able to take part in the official VITAE courses. Thus, the online community space was set up in a Ning site, which was open to the worldwide web community. It became the main hub of connection between the VITAE approach and the individuals who joined, and course participants made use of the Ning to discuss and reflect on their learning journey. However, as time went on we realised that many of those who joined were not necessarily inclined to engage actively, or that such activity ceased after a while. This is not unusual in online communities, especially in a time where there are diverse opportunities and many online communities based around the sharing of educational experiences, and we realised that the teachers who were most likely to join the VITAE online space had mainly seen it as one more networking space, where they can connect to other sources and learning experiences. Hence, the VITAE online hub has also become a connecting space, where people aggregate content from diverse sources via RSS (Delicious bookmarks, Twitter, etc), announce new learning events and share resources to enhance and offer extended learning possibilities to the networked teachers (fig. 7.4).
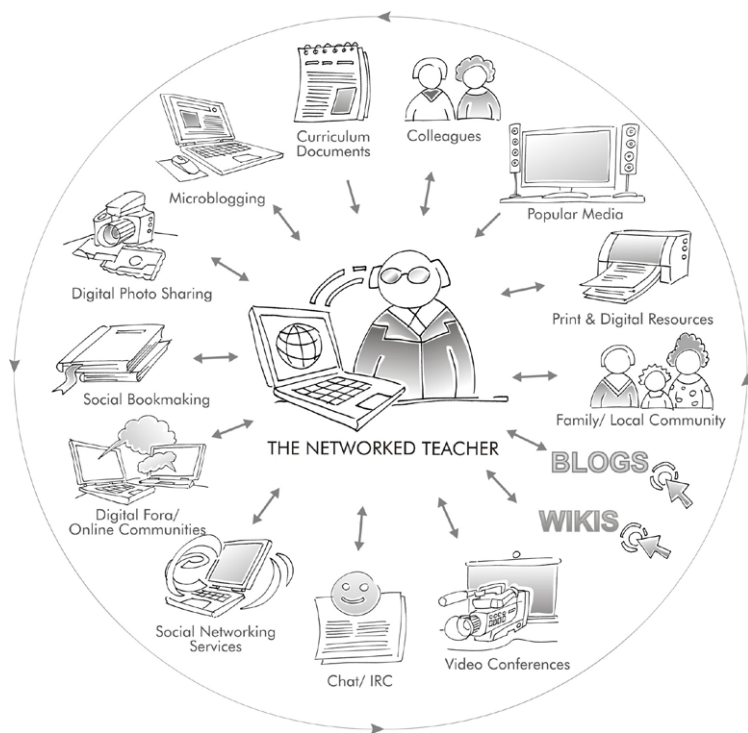

Fig. 7.4 The Networked Teacher (reproduced with kind permission of Alec Couros http://www.flickr.com/photos/courosa/2922421696/)

7.3 Challenges and tensions

7.3.1 Sustaining communities

One of the biggest challenges any online community-based educational environment faces is sustainability. While it is relatively easy to set up a space where people come together, creating habits of congregating online to learn and construct knowledge in a collaborative effort constitutes a totally different level of experience. This is a challenge faced by VITAE, which can only be overcome through effective user engagement activities alongside the provision of innovative and diverse learning opportunities. In other words, for the activity of VITAE to be maintained, the core group of the community needs to continue to push the activity in that space forward, be it through self-initiated activities, or by linking VITAE to others networks and communities. As described in the prior section, opportunities for learning are more dispersed, yet they have become more connected than ever. Online environments allow multi-networking and participation in different communities; opportunities are diverse and wide - we just need to know where to go and choose whom to work/learn with. One of the main reasons why an international community is important is that it can become an invaluable treasure in terms of connections, knowledge base, and collaborative opportunities. Nonetheless, this is still not a common practice in online learning. The majority of courses delivered online are instructor-led and the first attempts at developing the VITAE course were no exception. People initially joined in with the purpose of learning about the topics as listed in the course templates, expecting to cease their activity once the course officially ends, as they would in any other traditional setting. However, no course completion should implicitly put a stop to one's learning path when learning is a continuous process. Although that has never been the purpose of VITAE, we might have sent that message by adopting the course terminology for our mentoring sessions. This is a reality we have observed within the pilot modules we have offered, and that we now aim to revise; changing people's minds will, however, be the greatest challenge.

7.3.2 Mentoring in practice

In this chapter we are outlining our approaches to internal and external community formation across multiple platforms, describing the challenges in sustaining online communities where membership is fluid by nature. There are also tensions in relation to mentoring in practice, in terms of the provision of an overarching VITAE course template on the one hand, and allowing for individual needs and/or training requirements on the other.

The role of a mentor is to offer tailored learning opportunities. Hence, the curricula have to be sufficiently flexible to meet the aims and purposes of the individual as well as those of the community. Mentoring is not about rigidly pre-planned tasks, but rather based on learner-driven conversations and dialogues, from which new practices can emerge. Mentoring is about fostering coherent informal learning situations supported by expert

feedback. Most importantly, mentoring for 21st century skills is not about learning about technology per se, but rather to explore the potential of Information and Communication Technologies through collaborative methods, exploratory learning and knowledge sharing in situated, hands-on contexts. This, however, can create tensions due to differing epistemologies. Flexible approaches to teaching and learning do not necessarily sit easily within formalised educational structures. Within the partnership itself there has been much discussion in relation to the VITAE course template – how prescriptive do we need to be in terms of developing a course which is identifiably VITAE, and what implications does this have for individual needs and/or training requirements? Personalised, learner-centred and flexible modes of delivery may be more suited to those with some degree of techno-literacy and experience. Some learners require an in-depth approach to mastering one social platform (e.g. wikis); others want to experience a wide range of technologies (e.g. blogging, Twitter, Flickr), but do not want to spend time on in-depth learning and reflections. If true personalisation and learner-centeredness means moving away from the VITAE core template, is it still VITAE? In a way it has given us, mentors, a pretext to deepen our work on the mentoring part and put even more emphasis on the new pedagogy and less on the tools. Whereas in the first attempt to design a VITAE template, the mentors still projected considerable concern on the learning of the tools, in the second half of the project the mentors came back to the initial plan of giving total prominence to the pedagogical aspect and embedding the use of web tools in real contexts, through which content and expertise at both pedagogical and technical levels are supposed to emerge as a result of individuals' participation in their own learning.

7.3.3 Language and communication

As we described earlier, an intercultural community features a complex language challenge, since member activity is not supported in only a single language but several. Within the VITAE community space (Ning), where mentors and participants learn together, we could have decided for a common language for communication, but part of the conversation's richness is also in the cultural way in which people express themselves. Working in one's mother tongue often proves to be more productive and meaningful. Furthermore, diversity is also an advantage of the global society, hence the community's choice to operate as a multilingual community. In a way that has also relieved some foreseen tensions in terms of fluent communication. One can argue that by featuring an environment where a wide diversity of languages co-exist, the whole community is enclosed within its cluster. The truth, however, is that all clusters are not restricted to any particular group of people, and remain open to a wider audience. Accordingly, speakers of other languages can contribute to several discussions at the same time, if they wish to do so. This choice was mainly to draw people's attention to the fact that despite English being seen as the main international cultural/academic language, the online learning landscape can take many forms, and learning can happen in any

language, depending, of course, on people's willingness to contribute to the development of that same environment.

7.3.4 Organisational issues

Clearly the institutional/organizational policy has offered interesting challenges and also produced some tensions, especially related to the VLEs (Virtual Learning Environments) offered by institutions and the online toolkits the project partners had envisaged for their VITAE mentoring sessions. Institutional technological provision is still very organization-centred, which may offer reduced scope for creative and open learning approaches, as foreseen in the VITAE core template. Institutional VLEs present several limitations, amongst which are the rigid communication channels, whose control lies in the hands on the 'instructor', leaving little scope for user autonomy. Furthermore, the institutional VLE constitutes a closed space, restricted to institutional membership, which undermines the objective of community building to a great extent. There is a tension between the provision/use of the institutional VLE and the project's intentions to mentor staff within an innovative pedagogical framework which they should later be able to apply to their practice. Indeed, institutional and organizational factors have impacted on our choices in terms of support platforms, despite our being acutely aware that there is no 'one size fits all' approach (Bell et. al. 2007). Although we had the best intentions in terms of personalization and flexibility, it was necessary to adopt formal learning platforms in some cases. This experience made us realize how far theory is ahead of practice. Although many research studies have generated conclusions and recommendations regarding the need of the educational system to shift the focus from a teaching to a learning perspective, the fact is that many institutions are still far from adopting a pedagogical approach geared towards 21st century skills. A great percentage of the supported technology is both instructivist oriented and institutionally controlled. As far as possible we moved beyond institutional systems and communicated and collaborated via open web-based platforms, where our audience could be exposed to a wider range of possibilities. In doing so, we also encouraged participation in a wider community that could potentially support their further professional development. It was also on the same grounds that the mentoring teams have decided on the use of free and open software as a form of providing participants with an approach they can easily adopt as part of their future practices.

Conclusions

In this chapter we have described the formation and ongoing development of an online community for VET teacher training in the use of Web 2.0. We have outlined the VITAE philosophy, which is that mentoring for 21st century skills is not about being focused on learning about technology per se, but rather to explore the potential of Information and Communication Technologies through collaborative methods, explora-

tory learning and knowledge sharing in situated, hands-on contexts. The VITAE project aims to implement these innovative learner-centred approaches in order to develop 21st century skills within an intercultural online learning community. The community/social networking site Ning is used, and a multi-lingual community is now emerging where peer mentoring is a core feature. However, we also recognise the distributed and networked nature of online learning communities, and have seen our community space evolve into something that is not only used for sharing learning experiences through mentoring, but is also connecting with a wider network through aggregation and dissemination. With regards implementing a mentoring approach via open online platforms, challenges and tensions arise when innovating between institutions where there is a huge diversity of different learning situations. While there is a need for standardization, this also can contradict requirements for innovation. However, by developing frameworks which allow for customization and a degree of flexibility, and shifting the focus from the institution to the learner (and the community), lifelong learning and competence development can be enabled through community-based mentoring and ICTs.

References

Barr, R. B. & Tagg, J. (1995). From teaching to learning-a new paradigm for undergraduate education. Change Magazine, 27 (6): 12-25.

Babic, S., Kralj S., Pogarcic I. (2008), E-learning: Who is a student here?, paper published in the e-learning Europa site http://www.elearningeuropa.info/files/media/media15946.pdf

Bell, F., Keegan, H. and Zaitseva, E. (2007) Designing Virtual Student Mobility. O'Doherty, E. (Ed.) Education in a Changing Environment. Publisher: Informing Science. ISBN 1932886133.

Dias Figueiredo, A. & Afonso, A.P. (2006). Managing Learning in Virtual Settings: The Role of Context. Information Science Reference. ISBN 10:1591404908

European Commission (2004) Joint interim report "Education and Training 2010: the success of the Lisbon strategy hinges on urgent reforms" 0303 2004, (doc 6905/04) http://ec.europa.eu/education/policies/2010/doc/jir_council_final.pdf (last accessed 10 January 2009)

Ramboll (2005). The use of ICT for learning and teaching in initial Vocational Education and Training, Final Report to the EU Commission, DG Education and Culture. http://ec.europa.eu/education/archive/elearning/doc/studies/ict_in_vocational_en.pdf (last accessed 18 May 2009)

Stuckey, B. & Smith, J. (2004) Sustaining Communities of Practice (draft only)

Sandusky, R. (2005) Forming and Sustaining Online Communities: The Role of Distributed Collective Information Practices. Paper avail. online: http://jellis.org/work/group2005/papers/sanduskyWorkshop.pdf

UNESCO (2002). "The role of student affairs and services in higher education, a practical manual for developing, implementing and assessing student affairs programmes and services - follow-up to the World Conference on Higher Education" (Paris, 5-9 October 1998) http://unesdoc.unesco.org/images/0012/001281/128118e.pdf (last accessed 18 May 2009)
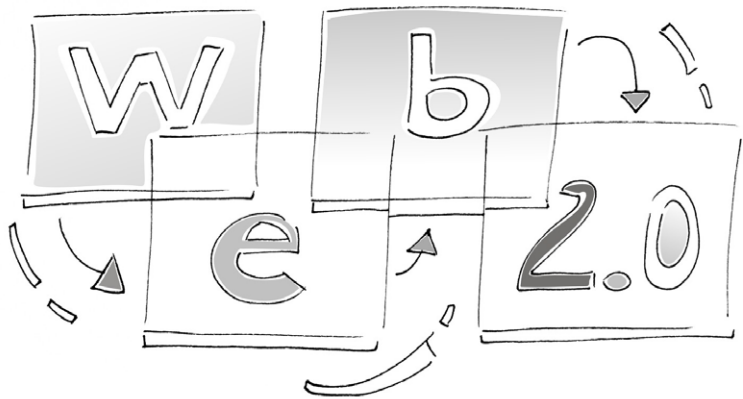
Chapter 8

Web 2.0 – Learning Culture and Organisational Change

The (change) management perspective of VITAE or how to deal with resistance to the implementation of the VITAE model in educational organisations

Thomas Berger

Introduction

One of the aims of the VITAE approach is to implement E-learning and new learning methods in educational organisations. For this purpose the management perspective is one of the building blocks of the VITAE "Train the Trainers" model (chapter 2, fig. 2.1). Without the involvement of the management there is a high risk that new teaching methods stay in the hands of a few enthusiasts, therefore there is a danger that those teaching methods will disappear when those enthusiasts leave the organisation or focus their enthusiasm elsewhere. The following article is targeted at both trainers and managers in educational organisations. It aims to provide support to those who would like to implement e-learning and new teaching methods in their organisations and who have a) already experienced resistance to such a change management process, or b) expect potential resistance. The article intends to help this target group by providing an understanding of the role of new media in the process of changing a "learning culture" in an educational organisation. Furthermore it introduces an approach to change management in educational settings which attempts to change resistance from a hindering to a productive element of change processes.

8.1 New media and changing learning cultures

The learning culture is changing. What is the role of new media in this process?

The relationship between new media and education is not uncontroversial. Euphoria and scepticism can best describe the opposing reactions the topic evokes among the educational community. Some see a new generation of learners growing up together with the Internet. Such a generation requires new educational approaches which make use of tools the Internet provides and which are formed by the development of the Internet. Most teachers in today's vocational, school and higher education organisations grew up without or with a different, i.e. older version of the Internet than their learners. Prensky coined the terms of "digital natives" for the new generation of learners and "digital immigrants" for the generation of teachers, and expects teachers to act accordingly:

> *"So if Digital Immigrant educators really want to reach Digital Natives – i.e. all their students – they will have to change. It's high time for them to stop their grousing, and as the Nike motto of the Digital Native generation says, 'Just do it!'"* (Prensky 2001).

Other scholars reject the existence of such a "generation conflict" and regard the role of new media as being over-hyped in recent years. The German Education scientist Schulmeister points to the lack of empirical evidence to support the hypothesis that the Internet influences educa-

tional requirements. He observed that the daily use of Internet tools is changing learning behaviours or the expectation for the learning process only for a minority of his students (Schulmeister, 2008).

The number of people who are blogging or contributing to a virtual community is growing as the number of Internet users is growing. But all Internet studies confirm that the majority of people who are using blogs, discussion forums or similar platforms stay passive.[1] Howard Rheingold, one of the early activists of virtual communities and a scholar observing Internet development stated that:

> *"Over the years, I have learned that virtual communities are not the norm, but the exception; that they do not grow automatically but must be nurtured."* (Rheingold 2000)

This suggests that still for a majority the way of using the Internet is more oriented to the traditional pattern of consumption of television than to computer mediated forms of social interaction and collaborative production of content (often described as Web 2.0).

Independent from the exact role new media is given, the way we learn is changing and this is a fact which cannot be neglected. Socioeconomic (globalisation, demographic change) and political developments (European integration, European reform processes such as the Lisbon, Bologna or Copenhagen process) have had an influence on learning environments. It is also a fact that the Internet offers new learning opportunities, although it was mentioned before that the extent learners and trainers take advantage of those opportunities (e.g. intercultural exchange and virtual mobility, new ways of expression, ad hoc access to a huge amount of learning resources and contact with experts) is another issue.

8.2 Learning culture and organisational development

The change of learning culture is an issue of organisational development, isn't it?

The concept of "learning culture" helps to provide a wider perspective on the relationship between education and new media and it allows integrating the management and organisational perspectives. The use of the term "culture" reveals the influence of values, traditions and norms on learning activities and environments. Sindler describes Learning Culture as an interrelation of 4 perspectives (Sindler 2004):

- the learner (behaviour) perspective includes their motivations, emotions and learning strategies
- the trainer perspective includes the design of learning environments for the learner to facilitate learning (methods, tools)

[1] see e.g. the European Media Use study EIAA Mediascope 2008 http://eiaa.net/Ftp/casestudiesppt/EIAA_Mediascope_Europe_2008_Pan-European_Executive_Summary.pdf or the German Internet Study ARD/ZDF-Onlinestudie 2008: http://www.daserste.de/service/studie08_4.pdf, last visit 06/06/2009

- the institutional framework perspective includes the organisational framework, the infrastructure of learning
- the organisation perspective includes strategic development plans and management decisions of an educational organisation

Figure 8.1 illustrates the interrelation of those four perspectives (adapted and translated version based on Sindler 2004).

According to Kirchhoefer (2004) one of the main factors for the current change processes in relation to learning culture consists of the process of dissolving boundaries. This means the dissolution of social structures of our work and daily life, which results in dissolving boundaries for learning. The dimensions for this process of dissolution comprise the following factors:

- **Time –** learning takes place in all phases of life, the time for learning is no longer seen separately from other periods in one's life (the concept of life-long-learning)
- **Space –** Information and Communication technologies allow independence from special learning locations (such as the regional vocational school), learners can construct a learning space consisting of a diversity of learning locations, even wholly online.
- **Resource –** Information and Communication technologies allow almost unlimited access to open and free learning resources
- **Content –** the relative importance of knowledge is decreasing against the importance of competences, especially those of meta-competences, i.e. the ability to learn, to further develop and maintain competences relevant to a professional field, self-management abilities
- **Social form –** in a self directed learning process the social functions of learning and teaching can no longer be separated
- **Institution –** traditional institutions have to deal with new forms of learning, e.g. learners seeking recognition of informal and non-formal learning, i.e. learning which has taken place outside of formal learning institutions
- **Biography –** after school the degree of freedom to decide about content, time and duration of learning increases

[2] See e.g. CEDEFOP - European Centre for the Development of Vocational Training (2008): The shift to learning outcomes - Conceptual, political and practical developments in Europe, Thessaloniki

The dissolving boundaries of learning are a reaction to and a catalyst of socio-cultural developments. They are reflected in ongoing reforms of our educational system. Examples are the promotion of life-long-learning through the UNESCO and EU bodies or the shift to learning outcomes and competence orientation as part of the Bologna and Copenhagen process.[2]

Kirchhoefer however suggests that the change of learning culture is not a linear process; instead traditional and new learning cultures will co-exist and both types of learning culture will further develop.

Fig. 8.1 Elements of "Learning Culture"
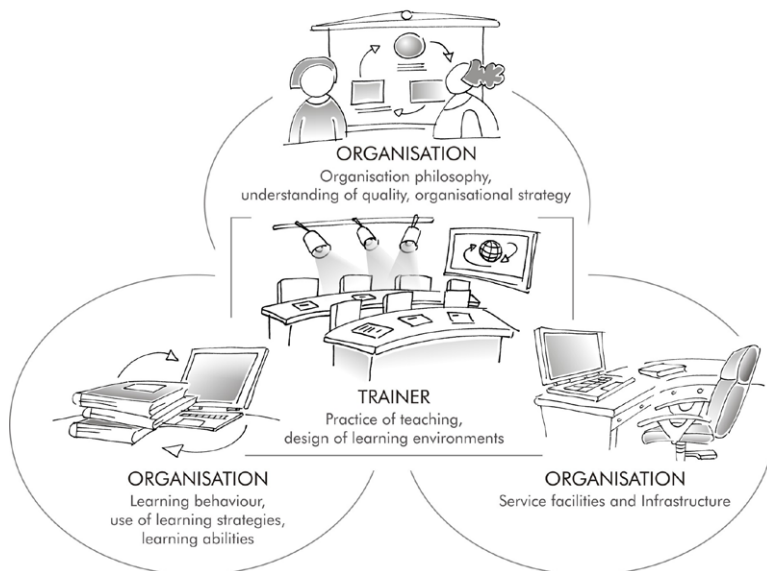
New media (ICT) can be an important factor in the process of chang-ing learning culture but it does not automatically become a catalyst for change. The conflict between enthusiasts and sceptics concerning the role of new media in education is often rooted in the misunderstanding of this difference. Learning culture changes because traditional boundaries of learning are dissolving. New media can support this process but they can also cause the contrary. Parker describes this as a dilemma of intro-ducing new media in education:

> "Some observers have gone so far as to suggest that digital technology may hamper rather than promote educational change, because the focus of investment becomes short lifecycle technologies, rather than the longer view needed for effective education." (Parker 2004)

The dynamic developments of the Internet, of Web 2.0 tools such as blogs, podcasts, microblogs (e.g.Twitter), social networking platforms (e.g. Ning) etc. often come with the expectation that those new tools will be used in educational organisations (see Prensky) and that by using them the quality of the learning experience will increase. When attention is focused on tools at the expense of the learning culture, the disappoint-ment about the effects, about "old wine in new bottles", about seldom-used expensive learning platforms and learning software, about teachers surrendering to the technical skills of their media-savvy students etc. can be predicted. New media can also be used to support very traditional forms of instruction. Computer or Web based training such as prepara-

[3] See http://www.ecdl.org, last visit 06/06/2009

tory courses for the International or European Computer Driving Licence[3] or other popular training programmes using multiple choice tests (quizzes) to control the learning progress are examples of traditional learning culture facilitated by new media.

On the other hand networking and connection-building among educational institutions and among learners independent of their location is practically impossible without the help of new media. Networking can also be seen as the basis of a new learning theory known as Connectivism (see [Siemens 2006] and [Gonella and Pantó 2008:4]), which describes the process of learning as a constant effort to connect information, ideas, concepts not only with other learners but also with experts. The decision about the relevance of a certain connection is part of the effort of the learning process.

Table 8.1 shows the difference between traditional and new learning culture according to Kirchhoefer's criteria[4] and it provides examples, which illustrate how the VITAE model intends to promote the change to a new learning culture.

[4] See also (Kirchhöfer 2004: 113); own translation from German original

Gonella and Pantó (2008) link the change of learning culture with the change of organisations, i.e. the organisation that the trainers and their trainees are working within has an influence on the learning culture. But it is also influenced by a new learning culture in a mutual relationship. As in the case of development of a learning culture, organisational development is not a linear process. All organisational models from Taylor's production model (inspired by the behaviourism of the industrial age) to post-industrial developments towards a learning and knowledge based organisation can still be observed in our business world. Terms such as Enterprise 1.0 and Enterprise 2.0 as well as E-learning 1.0 and E-learning 2.0 intend to illustrate the change but might also give the impression that there is a linear development. Nevertheless the table provided by Gonella and Pantó (2008:9) illustrates the relationship between organisational and pedagogic models as well as technical, structural and theoretical developments (Table 8.2). According to this table the VITAE model can easily be linked to the final column, "E-learning 2.0". It uses the web-platform Ning as a learning community environment. It no longer depends on fixed learning objects as part of a Learning Management System (LMS such as WebCT) but rather makes use of the diversity of web-tools. The Vitae Flickr-Group (Fig.8.2), the VITAE bookmark collection on Delicious (Fig. 8.3), and the VITAE network on Ning (Fig. 8.4) are examples of such tools.

From an organisational perspective we can see that the VITAE model is not compatible with traditional production models and organisational structures. This has consequences for the implementation of the VITAE model. It demonstrates that the implementation of new media in adult and vocational learning organisations is a question of change of the learning culture and consequently a question of organisational develop-

Table 8.1 Comparison between traditional and new learning culture

Criteria	Traditional Learning Culture	New Learning Culture	Examples from VITAE model
Position of individuals in the learning process	External responsibility and external organisation of learning process	Self directed learning, individual responsibility and organisation of learning	Emphasis on the organisation of a personal learning environment
Learning Content	Oriented to qualifications, instrumental perspective	Oriented to competences and learning outcomes, empowerment perspective	Definition of learning outcomes and competences according to UNESCO ICT standards and national qualification methods
Learning Sector	Division of learning into specific sectors (school, vocational, adult, further and higher education)	Integration of different former sectors and integration of social and daily environment of learners	The different pilot runs taking place in different institutional settings and sectors demonstrate the flexibility of the model. For instance Module 1 of the VITAE template provides examples of how the social environment becomes part of the personal learning environment
Learning Method	Formal, instructivist	Informal, constructivist, self reflective	The Learning Portfolio (including the digital version called e-Portfolio) is a documentation method of a self-reflective learning process but it also symbolises learner independence
Learning Biography	Oriented to life phases	Lifeong Learning	The VITAE model promotes learning which is fully integrated in the professional life of trainers and participants
Learning Goals	Defined by central curricula	Identified in the framework of personal learning environments	Although there are institutional and in some countries even governmental qualification standards the VITAE model had to take into account (as reminiscent of the traditional learning culture), the model itself is based on building a personal learning environment. The diverse learning outcomes of the pilot runs demonstrate the flexibility
Organisation of Learning Cooperation	Institutional segregation	Flexible, fluid networks	The VITAE model promotes learning within a community of practice and promotes active networking beyond a course or institution. The practical implementation however shows that language barriers and other constraints might still lead to (albeit new forms of) segregation rather than fluid networks

| Learning Certification | Oriented to diplomas, degrees | Open and flexible | The VITAE model describes learning outcomes according to the UNESCO ICT standards[5] (see Chapter 2). The documentation of learning results using the portfolio in combination with the standardised references to competence levels allows recognition and certification in a wide range of contexts, whenever and wherever required. The current development of the ECVET[6] system will facilitate this form of European-wide certification in the future. |
| Teaching Culture | Teacher centric, hierarchical | Learner centric, co-operative, teacher as facilitator | The mentoring component of the VITAE model is the most prominent example of how a cooperative and learner-centric learning culture is promoted by the VITAE model. |

[5] See http://cst.unesco-ci.org/sites/projects/cst/The%20Standards/ICT-CST-Implementation%20Guidelines.pdf, last visit 06/06/2009

[6] See http://ec.europa.eu/education/lifelong-learning-policy/doc50_en.htm, last visit 06/06/2009

Table 8.2 The relationship between didactic architectures and organizations

| Organisation	Industrial society	Enterprise 1.0	Post-industrial society	Enterprise 2.0
Production model	Fordism	Taylorism	Post-industrial	Knowledge society
Company structure	Hierarchical	Hierarchical	Flat	Flat/Liquid
Organisation model	Top-down task-oriented	Top-down people-oriented	Middle-up-down	Bottom-up
Theoretical Framework	Behaviourism	Congnitivism	Constructivism	Connectivism
Pedadogic approach	Transmissive (autonomous)	Assisted	Collaborative	Peer to Peer
Tools	Web-delivered	LMS	LMS + collaborative tools	Web as a platform
Contents	Course-based training	Learning objects	Mixed production by teachers and students	Community-based, user-generated contents
Didactic architecture	**Web based training**	**Elearning 1.0**	**Online education**	**Elearning 2.0**
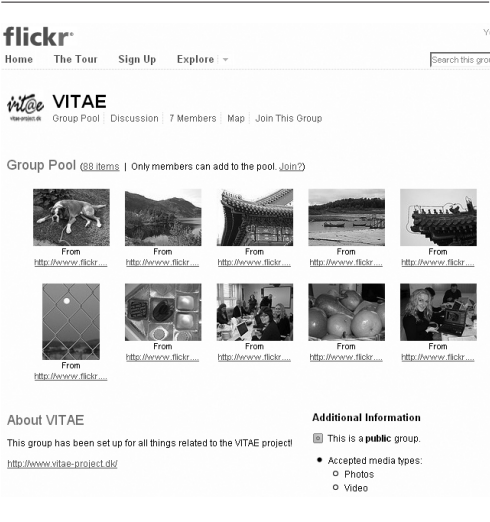
Fig. 8.2 VITAE Flickr group
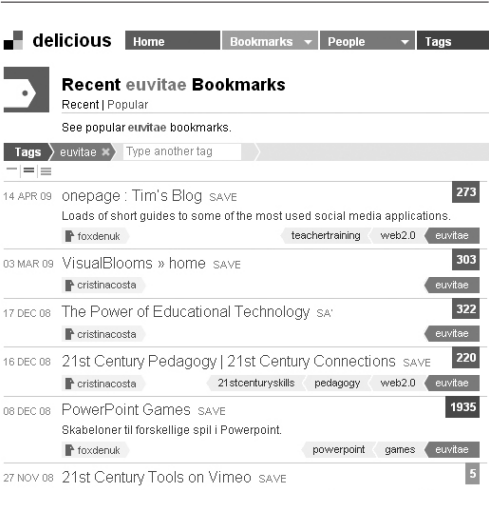
Fig. 8.3 VITAE Delicious Bookmarks

ment. Most educators do not have a management background and rather underestimate this organisational perspective. The aim of the following section is to identify concepts, instruments and tools of organisational development, which provide assistance in the implementation of the VITAE model and with the task of getting support from management and colleagues for this process.

8.3 Learning culture and resistance to change

Is it natural that colleagues resist the change of learning culture, i.e. to an important process of organisational development?

The implementation of the VITAE model is a change process. Every change process however results in resistance to the change intended. Especially in educational organisations, the phenomenon of resistance to change can be acute, and readily observed. The structure of educational organisations is one main reason for this. Most educational organisations are "expert organisations", which means that trainers or teachers have certain autonomy in carrying out their work. The extreme on a scale of autonomy is represented by tenured professors at traditional universities (which as part of the Bologna process are providing adult and further education as well). However, even in other educational organisations the work of trainers/teachers requires autonomy concerning methods and tools used. Furthermore, teachers and trainers often identify more with their community of peers than with their organisation. Teachers in adult education often have freelance status and work for more than one

Fig. 8.4 VITAE social networking environment in NING

employer, or in the case of higher education recognition of an expert community is more important than recognition within ones own institution.

This means that a change of the learning and teaching culture within an organisation can easily be undermined by trainers/teachers. Indeed there is a general impression that many educational organisations have very good ICT infrastructure but most of the teachers/trainers are not using it as expected (the impression of learners, politicians, educational experts etc. – see e.g. Prensky). As a result of an empirical study of German Volkshochschulen (adult education centers), Stang (2003) came to the following conclusion: these organisations usually have a good technical infrastructure and demonstrate a general openness to new technologies but in general keep to traditional forms of learning, resisting change of their organisational structures. He identified a number of reasons for this resistance, e.g. lack of personnel and financial resources, scepticism concerning new media and lack of orientation to innovation at management level (Stang 2003:94).

On the other hand if the implementation of a new learning culture is reduced to "just" technical and "just" didactic aspects the management level often does not see the need for getting fully involved.

The implementation of a new learning culture is a change management process on an organisational level, leading to the question:

How can we deal with resistance within a change management process of an educational organisation?

8.4 Resistance as a change management process

While there is agreement about the fact that resistance is part of every change management process, there are different perspectives on the issue of dealing with resistance (Thiel, 2000; Cacaci, 2006; Doppler, 2005; Kühl, 2000). The majority of definitions of resistance in change processes imply that resistance is disturbing the change process and has to be overcome. On the other hand there is widespread agreement that one cannot work against resistance but has to work with resistance. If the latter is true (and taking the nature of educational organisations into account) it can help to change the perspective slightly and to ask if there is a possible productive use of resistance. From this perspective the definition of resistance would change into the following:

Resistance

- is a natural reaction to a change process
- is an indicator of being affected (as a member of an organisation) on an emotional, material, social, political and cultural level
- is an indicator for potential contradictions and dilemmas within the change process itself
- provokes questions about its legitimacy and potential consequences on an organisational level

According to the definition of learning culture it is important to take both the personal and the organisational level into account. On the basis of this definition it is possible to derive an analytical tool to analyse resistance (table 8.3). This analytical tool can be used in preparation of the implementation of a change process (such as the implementation of the VITAE model). It is targeted at trainers and managers in educational organisations. It can be used to detect potential resistance in advance and the results can be used to further develop change management strategies. However it may also be used during the implementation of the change management process (as resistance cannot be fully prevented) to find measures of working with the resistance.

The analytical tool consists of guiding questions divided into different "levels of reflection" and provides an overview of these questions of "self reflection" at each level. The table is followed by a practical example illustrating the potential use of the tool. While the primary area of application is planning of the implementation of the VITAE model as a change management process, many of the guiding questions are also helpful to plan a mentoring process – as mentoring can also be seen as a "mini change management process".

Table 8.3 Analytical tool for change management process

Level of Reflection	Guiding questions of analysis of resistance in change processes
Awareness level	Am I aware that, • resistance is a natural reaction to change? • resistance is an indicator of members of an organisation being affected by the change process? • resistance can be an indicator for contradictions, dilemmas and other discrepancies of the change process itself? • I have to ask for the legitimacy of resistance and am I prepared to deal with consequences at the level of persons, organisational structure or on the level of design of the change process itself?
Discovery level	What kind of symptoms of resistance have I observed / do I have to look for?
Analysis on an emotional and personal level	To what extent will expectations of members of the organisation concerning goals, objectives and forms of cooperation of working in the organisation be disappointed? Does the change result in an increased or decreased burden? To what extent do those concerned by the change get support and experience acceptance and mutual trust?
Analysis on an emotional and organisational level	Does/did the organisation allow members to experience change as something positive? How does the organisation deal with critique (change is regarded as critique to the status quo)? To what extent does/did the organisation respect existing agreements with colleagues and deal with changes to them openly?
Analysis on a material and personal level	To what extent do colleagues regard the change as a material risk?
Analysis on material and organisational level	To what extent are potential changes in this regard transparent to colleagues? Does/did the organisation make clear to what extent existing material agreements, work load, career opportunities are affected by the change?
Analysis on a social and personal level	Do colleagues fear a loss of status? Do colleagues fear that existing promises and informal agreements are no longer valid?
Analysis on a social and organisational level	(To what extent) Is participation of colleagues in the change process possible? To what extent can colleagues contribute their own expectations and ideas?
Analysis on a political and personal level	To what extent might colleagues fear the loss of power or the loss of autonomy? To what extent are factual arguments against the change rooted in contents or in political interests?

Analysis on a cultural and personal level	To what extent are personal norms and values of colleagues affected by the change?
Analysis on cultural and organisational level	To what extent does the change process provide a vision colleagues can identify with? To what extent does the style of communication and leadership allow participation and open criticism?
Analysis on mode of change and personal level	Might colleagues feel taken by surprise or feel forced into the change process? How have/will colleagues experience decision taking concerning the change process?
Analysis on mode of change and organisational level	Does the organisation provide the necessary resources (personnel, time, technological infrastructure) to implement the change process? Which modus shall be followed – revolutionary, evolutionary, incremental change? Is the need for change plausible; is the dissatisfaction with the status quo obvious? Do colleagues have the chance (and enough time) to acquire the necessary skills and competences to implement the change? Does the organisation have the ability to collect, process and distribute systematically knowledge about itself and about its environment/about stakeholders?
Action	Based on the analysis, do I regard resistance as legitimate; do I see potential for productive use? To what extent can: The framework conditions of the change process be changed? Interventions transform colleagues from being worried about change to being active participants in a change process? Inconsistencies, antagonism and dilemmas of a change process be discussed openly? The analysis help to discover "blind spots" of the change process and alternative approaches?
Reflection	To what extent am I aware about reverse feedback effects, i.e. that the analysis of resistance might make resistance "attractive", "interesting" or a "fashion"? Am I aware that resistance is dynamic and results of analysis will change over time and together with changing factors outside the organisation (technological and pedagogical progress, job market situation etc.)? What about limits and side effects of methods used to deal with resistance? Do I want/can evaluate the use of methods dealing with resistance?

The following examples and scenarios are based on or inspired by the VITAE model and VITAE project. They illustrate the potential application of the tool. They show what kind of answers and consequences can be the result of the guiding questions.

Level of Reflection	Examples
Awareness level	On this level it has been important to develop the awareness that the implementation of the VITAE model is subject to organisational development and consists of a change management process. According to our perspective of change management in educational organisations resistance is something to be expected, but we try to see it as productively as possible (see definition of resistance above).
Discovery level	Examples of potential symptoms of resistance are lack of motivation to use new tools, aggressive behaviour, repression of the topic, verbal resistance, neglecting the need for change, making new tools and methods seem ridiculous etc.
Analysis on an emotional and personal level	A change of learning culture implies change on different levels at the same time. Introducing the different elements of the VITAE model and furthermore numerous Web tools can easily lead to a mental overload of colleagues and (teacher) students. Even in the VITAE project team we noticed that while web enthusiasts were trying out a wide variety of Web 2.0 tools, others stopped or hesitated to contribute because of the feeling of mental overload. It requires a very good communication culture and/or personal courage to express such feelings in front of enthusiasts. In our example leaving room for discussions about the added value of using certain tools has helped to keep those "on board", who are rather focused on teaching methods, organisational implementation etc.
Analysis on an emotional and organisational level	Almost all VITAE project members experienced that the change of learning culture does not result in a reduction of efforts in teaching, in most cases it even comes with an increased work load. The idea that new technologies save time is an illusion (even when it does on one side it requires extra efforts on another side) and one should be open about it. Nevertheless it is important to create room for positive experiences and "celebrate" those. In the case of the author a feedback tool for online course participants (who answer a questionnaire about their learning experience) creates such an opportunity as it is very rewarding for online trainers to read the (mostly very positive) comments and this feedback is evaluated regularly. Another small but effective example is the distribution of examples of good practice (contributions by course participants) among trainers (and at special events/meetings with managers). An environment for self directed learning can trigger the creativity of course participants enormously (see also examples from pilot courses in this book).

Analysis on a material and personal level	The change of learning culture will, as mentioned above, most probably not save time on the side of trainers. While for a project period extra efforts are tolerable, the impression that the change of learning culture will be an excuse for the need for working more hours for the same salary can undermine the change process. Here it will only help if there is a clear differentiation between the economic requirements that the organisation has to deal with, and the aims of changing the learning culture.
Analysis on material and organisational level	The change of the learning culture according to the VITAE model in many cases allows for more flexibility regarding working hours and working location of trainers as a number of training/learning activities can and have to be done online, i.e. also outside the organisation. Flexibility of tele-working however comes with potential risks of blurring the boundaries between private and professional life and potential fears concerning career opportunities, due to being less attendant (and visible) at the organisation. Regular meetings with staff working from home can help to reduce the risk and office space for trainers at the organisation allows them to work online but at the educational organisation and not from home.
Analysis on a social and personal level	The VITAE model can touch a number of status positions. In many educational organisations some lecturers are early adopters of technology and new learning methods and have achieved an expert's status in this area. Sometimes this status is even connected to special software (e.g. a learning management system). If the change implies the use of new tools and reduces the importance of the old ones, resistance can be expected. Furthermore, mentoring might be seen as lessening the expert's status, when through the mentoring process others are turning into "experts" as well. A way to encourage those colleagues concerned about their expert's status to get involved could be to provide alternative forms of status to them, e.g. through early involvement in planning of the change process, which allows them to develop their status position in a new direction (e.g. as "change management experts").
Analysis on a social and organisational level	The VITAE model foresees participation at different levels as participation is one of the key elements of a change process. For example the mentoring process itself naturally requires the participation of colleagues and the 'right' attitude. Being a mentor or a mentee requires participation in a change process. This way mentoring (independent of the subject of mentoring) can be seen as a facilitator for participative change/development processes within an organisation. While the meaningful use of Web 2.0 tools shall be promoted as part of a new learning culture it helps to support the change process by documenting the process using participative Web 2.0 tools such as a blog (which can also have the form of an audio-blog (e.g. a podcast), a kind of log book commenting on the change and inviting colleagues to comment on it online. Of course this shall not replace the face-to-face activities but might provide a useful follow-up to allow for even more channels of participation.

Analysis on a political and personal level

Every organisational development process results also in a change of micro politics and the distribution of power in an organisation. If for example the importance of Learning Management Systems is reduced in favour of more flexible arrangements of web-tools this concerns not only the status but also the question of budgets (e.g. to maintain the Learning Management System), access to technical support personnel etc. – this means resistance can be expected from those who seem to lose power in this process.

Analysis on a cultural and personal level

The introduction of a "new" learning culture means that we ourselves have mostly experienced traditional learning cultures in our life so far. Although we are aware of the advantages of a learner-centric approach, one easily falls back to teacher-centric thinking. To what extent can a teacher/trainer give up perceived control over a learning process, what is the mental image of a "good teacher" - such questions will come up more or less openly and consciously. The VITAE model makes use of the "intercultural story metaphor" to provide a potential basis of identification. This is reflected in the title and introductory sentences to the different modules of the VITAE template. The model of the acculturation process to a new cultural environment with the effect of "culture shock" has a number of analogies with the model of the change process.[7] By involving other areas of life experience (in this case of journeys to foreign countries) the vision of the change management process can be communicated more easily and effectively.

Analysis on cultural and organisational level

Every kind of "pro forma" participation in a decision making procedure shall be avoided as it will (sooner or later) cause resistance. For instance, in projects such as VITAE we learned that we review questions of evaluation forms twice; but do we only ask for comments on aspects which we can actually change (e.g. if we cannot change a certain conferencing tool it does not make sense to ask for comments on improvements of such a tool)? Eduardo Galeano's fable illustrates this aspect nicely: "Since the world is democratic, from time to time, the king calls the cow, the calf, the piglet, the goat, the lamb, the eagle and the fish together. There on the summit, the king welcomes them. 'I've called for you,' he says, 'because I want to know with which kind of sauce you want to be eaten.' Someone speaks out from the crowd with a humble voice. 'I do not want to be eaten at all.' 'This is not up for debate' declares the king and, shaking his head, he wonders how little civic-mindedness his subjects have achieved."[8]

[7] Compare the change process model of Schmidt Tanger in [Bauer & Gilch 2007:30] with its phases of surprise/shock, resistance, rational understanding, emotional acceptance, trial out, recognition/integration with the culture shock model of Kim [Kim 1988:57] with its phases of stress and adaptation, learning and unlearning, acculturation and deculturation, crisis and resolution

[8] See German version by Eduardo Galeano in: „So leben wir jetzt – Künstler, Dichter, Denker zur Lage der Welt", Lettre International 81, 2008 (own translation)

Analysis on mode of change and personal level	The result of this analysis, especially concerning plausibility might uncover "blind spots" in the change process. Schaffert and Hilzensauer point to such a potential "blind spot" (Schaffert & Hilzensauer 2008). In adult education organisation the development towards learner independence, self-reflective learning and the development of personal learning environments is often regarded as a positive and almost "natural" process. However such a learning culture comes with requirements concerning the "learning abilities" of learners. Not all learners are able to deal with this new learning culture and the learning environment. For example time constraints might not allow them to develop such abilities in parallel to their original learning goals. This refers to the understanding of the non-linear development of learning culture and that in some cases the further development of traditional learning culture might even be a better alternative.
Analysis on mode of change and organisational level	Especially in the (micro-) political realm it has to be noted that not all forms of resistance can be used productively. In a change process there might be actors (the analysis can reveal them), who use it as an opportunity to gain power at the expense of the aims of the change process and the performance of the organisation. Such a resistance would be regarded as illegitimate from the perspective of change management and in such cases a decision to overcome such a resistance might be necessary. However the examples above show that analysing (potential) resistance can lead to a productive improvement/adjustment of the change management and of the communication process concerned.
Action	The very analytical approach of mainly self-reflection presented here has of course also its limits. Some sources and reasons for resistance can only be revealed with the help of experts and the use of less analytical methods such as "constellation work" and psychodrama activities.[9] However most organisations have little experience with such methods and such methods can cause resistance themselves.
Reflection	Furthermore the list of analytical questions is quite extensive and time pressures of real life might force one to reduce them to a selection or to concentrate on a (few) specific level(s).

[9] Those methods are mainly based on Morenos work on the role of an individual in a change process. According to Moreno the individual requires a certain level of spontaneity to meet the demands of change (equlibrium of level of change and level of spontaneity). A disequilibrium is expressed in the interpersonal and inter-role relationships of the individual and in this way also affects other individuals. The methods mentioned shall increase the level of spontaneity of individuals (see e.g. Moreno, Fox 1988)

This example of practical use of the analysis and reflection tool illustrates that while the tool is not making the decisions for the user, it can help to make better decisions in (planning) a change management process. It points to the issues and questions which may need to be addressed. It allows trainers as well as managers to regard resistance as an element of change, which forces them to rethink the methods used and the provision of resources to implement the VITAE model as part of the organisational development.

Conclusions

The VITAE model requires both management support and promoting a new learning culture. The implementation of a new learning culture will not be successful when it is reduced to a technological or pedagogical perspective of change. It is in fact an organisational development process. However such an organisational change process will always encounter resistance. The change of learning culture can only be implemented by working with not against resistance. Analytical tools as presented in this article help to develop a productive perspective to resistance, which provides indicators for frictions and discrepancies of the change process and hence can help to make the change process more sustainable.

References

Bauer, Yvonne/Gilch, Harald (2007): Der Change Parcours – Eine Methode der Organisationsentwicklung in Hochschulen in Altvater, Peter / Bauer,Yvonne / Gilch, Harald (Hrsg.) Organisationsentwicklung in Hochschulen HIS: Forum Hochschule 14 | 2007 S.24-43

Cacaci, A. (2006): Change Management- Widerstande gegen Wandel Plädoyer für ein System der Prävention, 1. Auflage, Deutscher Universitäts-Verlag, Wiesbaden

CEDEFOP - European Centre for the Development of Vocational Training (2008): The shift to learning outcomes - Conceptual, political and practical developments in Europe, Thessaloniki

Doppler Klaus, Lauterburg Christoph, (2005) Change Management –Den Unternehmenswandel gestalten, 5. Auflage, Campus-Verlag

Ehrmann, S. C. (N.d.). Technology changes quickly but education changes slowly: A counter-intuitive strategy for using IT to improve the outcomes of higher education http://www.tltgroup.org/resources/Visions/Outcomes.html, last visit 06/06/09

Gonella, Laura and Pantò, Eleonora (2008): Didactic architectures and organization models: a process of mutual adaptation, eLearning Papers No 9, July 2008, www.elearningpapers.eu, last visit 06/06/09

Kim, Yong Yun (1988): Communication and Cross Cultural Adaption, Clevedon

Kirchhoefer Dieter (2004): Lernkultur Kompetenzentwicklung – Begriffliche Grundlagen, Arbeitsgemeinschaft Betriebliche Weiterbildungsforschung e.V., Berlin

http://www.abwf.de/main/publik/content/main/publik/handreichun-gen/begriffliche_grundlagen.pdf, last visit 06/06/09

Kühl, Stefan (2000): Das Regenmacher-Phänomen, Widersprüche und Aberglaube im Konzept lernender Organisation, Frankfurt/Main: Campus

Moreno Jacob Levy and Fox, Jonathan (1988): The essential Moreno: writings on psychodrama, group method, and spontaneity, Springer

Oberg, Kalvero (1960): Culture shock and the problem of adjustment to new cultural environments. In: Practical Anthropology (7), 177-182

Parker, Nancy K. (2004): The Quality Dilemma of Online-Education in Anderson, Terry & Elloumi, Fathi (Eds), Theory and Practice of Online Learning, Althabasaca University, cde.athabascau.ca/online_book, 29.9.08, pg. 385-409

Prensky, Marc (2001): Digital Natives, Digital Immigrants. in: On the Horizon, MCB University Press, Vol. 9 No. 5, October 2001

http://www.marcprensky.com/writing/Prensky%20-%20Digital%20Natives,%20Digital%20Immigrants%20-%20Part1.pdf, last visit 06/06/09

Schaffert, Sandra & Hilzensauer, Wolf (2008): On the way towards Personal Learning Environments: Seven crucial aspects, eLearning Papers № 9 • July 2008

http://www.elearningeuropa.info/files/media/media15971.pdf, last visit 06/06/09

Schmidt-Tanger, Martina (1998): Veränderungs-Coaching, Junfermann

Schulmeister, Rolf (2008): Gibt es eine »Net Generation«? Work in Progress, Hamburg, http://www.zhw.uni-hamburg.de/pdfs/Schulmeister_Netzgeneration.pdf, last visit 06/06/09

Sindler, Alexandra: Etablierung einer neuen Lernkultur – Modelle medienbasierter Lernarrangements zur Förderung selbtregulierten Lernens im Kontext der Organisation, LIT-Verlag, Wien

Siemens, G. (2005): Connectivism: A Learning Theory for the Digital Age, International Journal of Instructional Technology & Distance Learning, Vol. 2 No. 1 http://www.itdl.org/journal/jan_05/Jan_05.pdf#page=7, last visit 06/06/09

Stang, Richard (2003): Neue Medien in Organisationen der Weiterbildung - Empirische Befunde am Beispiel der Volkshochschulen, online (DIE) http://www.die-bonn.de/publikationen/online-texte/details.asp?ID=1815, last visit 06/06/09

Thiel, Heinz-Ulrich (2000). Widerstand gegen Veränderungen in Supervision und Organisationsberatung, in: H. Pühl (Hrsg.) (2000): Supervision und Organisationsentwicklung, S. 228-245

Wagner, Wolf (1996) Kulturschock Deutschland, Hamburg

Wengert, Veronika (2005): Kulturschock-Phänomene im Erleben deutschsprachiger temporärer Arbeitsmigranten in Russland in Medien und interkulturelle Kommunikation, Sammelband des Südosteuropäischen Medienzentrums http://soemz.euv-frankfurt-o.de/mik/, last visit 06/06/09

Appendices

List of Illustrations

Mentoring For21st Century Skills
It's All About The Learning

The rise of social software, often termed Web 2.0, has resulted in heightened awareness of the opportunities for creative and innovative approaches to learning that are afforded by network technologies. Social software platforms and social networking technologies have become part of the learning landscape both for those who learn formally within institutions, and for those who learn informally via emergent web-based learning communities. As learning collaboratively online becomes increasingly common, new skills in communication and collaboration are required in order to use new technologies effectively, develop real digital literacy and other 21st century skills.

This collection of papers and articles from members of the EU-funded VITAE project describes a mentoring approach to training vocational teachers in the use of Web 2.0. Aimed at teachers, trainers and practitioners, we describe the VITAE approach, including the processes, challenges and tensions in implementing mentoring through Information and Communication Technologies (ICT). Designed as both a practical and theoretical guide, we explore topics including:

• The VITAE approach
• ePortfolios for professional development
• Mentoring in online communities
• Games-based learning
• The experiences of VITAE course participants
• Web 2.0 and resistance to change

Mentoring for 21st Century Skills – It's All About The Learning offers the reader a range of perspectives on implementing and learning to train through Web 2.0, demonstrating good practice and real-life experiences in the development of 21st century skills.