PETVET

Methodology framework

Education and Culture DG

Lifelong Learning Programme

DETVET - methodology framework

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DETVET family

Introduction

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What is the book about

DETVET METHODOLOGY FRAMEWORK is a place where the DETVET (Development of Educational Techniques for Vocational Education and Training) project partners have decided to summarize all the experience and findings from the project. They consist of the parts represented by the six participating countries: Czech Republic, Denmark, Finland, Italy, Lithuania and Sweden that are laid by the alphabetical order. Each country has summarized their project activities and ideas in four articles that show to what extent the partners have approached the project aims. The themes of the articles are:

- VET system in a country,
- The educational technique (approach, method) brought into the partnership by each country,
- Results from the survey received by the questionnaire (the questionnaire – in Annex 1),
- Conclusions.

Why DETVET

Changes in labor market require much attention for improving education and training quality in the VET system and this should be well applied to the needs of modern economy and society life. Thus, the VET teachers' competitiveness in using education techniques (approaches, methods) is to be recognized as one of the components in quality of modern professional training. Nowadays students are not passive listeners anymore – they demand a lot of challenges and know-how from their teachers. To fulfill students' needs teachers should obtain ability to use modern educational techniques – as an efficient capacity to provide the students with ability to learn, also helping them in choosing adequate material and tools for their knowledge practical implementation.

The core of the problem recognized by the partners before joining their efforts for the project is that vocational teachers often have no special pedagogic (or andragogic) education. They are good specialists in their job (dressmakers, mechanics, etc.), they lead a training curriculum, but they have no formal (obligatory) assistance in picking the educational competencies (pedagogy, andragogy, didactics, ability to use ICT tools for distance education, etc.). There are institutions providing in-service training for VET teachers, as well as certain projects on the issue, but not much about the education techniques. The teachers who have participated in the project and those who use our methodology (or participate in the future projects) would gain some assistance in their daily work as their newly acquired tools will facilitate the educational (training) process, will help to motivate the students, foster their ability to learn.

The project partnership has been carefully formed from the institutions that have already gained experience both in VET and in training VET teachers. Each of the partner's institution has picked

a special issue (we call it technique) they have recently elaborated in order to share it and evaluate in different context with other participants of the partnership.

The DETVET partnership institutions

1. Klaipeda University Continuing Studies Institute (KU CSI, www.tsi.lt), Lithuania, project coordinator, provides a variety of continuing higher education and in-service training courses for Klaipeda Region VET teachers. Among other projects since 2003 CSI participates in education of unemployed people providing them with new qualifications in Administration, Book keeping, Nursering, ICT basics, etc. KU CSI Andragogy Department has elaborated a number of researches and publishing in Andragogy subject. The issue of Andragogic Approach has been presented for the partnership (see the article Peculiarities of the Andragogue's Professionalization).

2. The Swedish partner Folkuniversitetet (FU, *www.folkuniversitetet.se*) is an adult educational association that offers a wide range of adult education all over Sweden. It is an association of five foundations: the university extensions attached to the Universities of Stockholm, Uppsala, Göteborg, Lund and Umeå. There is a broad range of open educational programs in a variety of subjects; FU also run upper secondary schools, schools in higher vocational education and training, labor market education and further education and training for working life. Visions and ideas for better learning methods are developed and tested in project groups, often in international cooperation. The issue of Coaching as a Method forLearning in working life, empowerment and active guidance based on individual needs has been presented within the partnership (see the article Coaching as a Pedagogical Method).

3. SDE College (Syddansk Erhvervsskole, *www.sde.dk*), Denmark. The education here leads to AP- and Bachelor degrees. The usual ways of developing the competences of the teachers are in-service training or action based competence development e.g. in educational studies, counseling, project work, curriculum development, innovation technologies. In order to enable people after having graduated to start their own business or create new business areas in existing enterprises, the lecturers in education must be able to create this commitment in the teaching process. The partner presented the issue of Teaching in Entrepreneurship and Innovation that is so topical for lecturers (see the article The Danish Way of Innovation and Entrepreneurship).

4. TAMK (TAMK University of Applied Sciences, Finland, *www.tamk.fi*) is an internationally-oriented multi-disciplinary university offering higher education in Art and Media, Business, Engineering & Technology and Forestry. TAMK also has a Teacher Education centre which provides pedagogical education for teachers who wish to teach at universities of applied sciences, vocational schools and vocational adult education centres. The TAMK Teacher Education Centre is a member of an

international research project on virtual pedagogy. The eEDU Education Technology Centre is doing research on new technologies and educates teachers to use them. In the Degree Programme of Media at TAMK the teachers have got acquainted with problem based learning and exploited these methods in learning projects. Within the partnership there was the topic of Social Media Tools offered (see the article Social Media in the Education).

5. The Municipality of Sant'Angelo in Vado, Italy, has a training department, certified in the Marche Region. The department offers training to internal employees on communication aspects and team work and has experience in vocational training and continuous education for adults with emphasis on socially and economically disadvantaged groups, i.e. immigrants, unemployed people. In the close collaboration with the Training 2000 experts it has been provided the topic of ICT tools for Education within the partnership (see the article ICT in Adult Education and Networking).

6. Palacky University in Olomouc (*www.upol.cz*), Czech Republic, is formed by eight faculties; Faculty of Education ranks among them. Members of the Department of Education are responsible for the instruction of educational disciplines necessary for future teacher training at the Faculty of Education and 4 other faculties. Except for that, Department of Education guarantees various independent study branches that are run in both a daily (full-time) and a distance form of study (which means that the new courses design including necessary publications have been specially created). Tutorship for Distance Education – is the topic that was shared within the partnership (see the article Tutor in E-learning).

The partnership had two so called silent partners: Kaunas Vocational Training Centre for Business Specialists from Lithuania and Training 2000 from Italy.

What did we do

The purpose of the project – to form an international sustainable partnership in order to improve VET teachers' competencies in education techniques – was fully reached and the results gained both at national and international levels. There were six meetings organized, each of them having it's clear objective and outcomes defined. Before and between the meetings the work was done mostly in the national teams: dissemination, discussions, survey, validation of the chosen technique within local VET teachers, preparation the material for publishing, reporting, etc. At the international level there were carried out such activities as: exchange of methods and state of art analysis, blog design and development (*http://detvet.blogspot.com/*), investigation tools design (questionnaire at the attachment 1), investigation results and recommendations, common methodology design, etc.
Every participating institution picked the most relevant theme for the teachers' educational needs in approach (technique) and discussed it with teachers and students in local education environment.

The pivotal outcome of the common share is mutual trust and appreciation in the partnership, the brought together competences, contribution of all partner countries disseminated at the European level.

What have we got from the partnership

After the surveys were made in all countries, there was the clearly defined picture that our teachers need to gain more skills in use of social media, ICT tools, coaching as a method and education in entrepreneurship and innovation. It is well seen in each partners' Conclusion chapter - different education cultures in countries and different types of institutions suggest different solutions for teachers' qualification improvement. However, all the partners agree that they have gained from the partnership a lot of experience and know-how that encourages them to meet new challenges and promote institutional development. There are some general outcomes that partners have concluded:

1. Much more attention should be given to the shifting paradigm. The Finnish partner (as well as other partners) raises a question of the educational use of social media – the change of culture of teaching. The education phenomena should be released from the closed classrooms and better applied to the workplaces, other surrounding environment; and teachers are supposed to be well prepared for that challenge.

2. Higher vocational education and training must be developed, and be maintained more in cooperation with companies and working life.

3. Not only pedagogic development is needed but also development of networks (working in teams, coached by a professional trainer) in order to gain efficiency in education and training.

With the DETVET project it has been a great challenge and an important experience, to build up a dialogue during and between the six meetings. We learned that we all had plans and agendas, that none of us could imagine in advance. When a delegation after two days of meetings and 5 minutes before leaving, put on a serious matter, it isn´t bad timing, but a great expression of how we in different ways distinguished between a serious matter and an announcement beyond dispute.

We now know that we can´t predict all various opinions and different traditions going on in six countries. We have now moved beyond the normative wondering, to the stage of curious wondering, in which we still can be astonished, and even then unite our experiences.

Without the international partnership there wouldn't be such an effective outcome achieved – new ideas and well applied practice under different circumstances – that brought a lot of creativity and new know-how into our institutions.

The methodology framework and the authors

Czech

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The four Czech articles

1) Vocational Education and Training in the Czech Republic
2) The tutor in the e-learning
   The specifics of the educational activity of the tutor in the controlling of learning in the distance education
3) The Czech part of the DETVET questionnaire
4) The Czech conclusions

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2) The Danish way of innovation and entrepreneurship
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3) The Danish part of the DETVET questionnaire
4) The Danish conclusions

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2) Social Media in the Education
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3) The Italian part of the DETVET questionnaire
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2) Peculiarities of the Andragogue's Professionalization
   Five domains in the Andragogue's Practice
3) The Lithuanian part of the DETVET questionnaire
4) The Lithuanian conclusions

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3) The Swedish part of the DETVET questionnaire
4) The Swedish conclusions

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Read the presentations of the six DETVET institutions in the introduction chapter

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chapter I

CZECH REPUBLIC

Inventory of VET in the Czech Republic

"Every graduate from secondary vocational school remembers one or two masters or mistresses who have essentially influenced their life and attitude towards work, whether in the best or the worst sense".

Schools providing VET at secondary and tertiary levels (see Annex 1) can be distinguished by the level of education and the nature of the education provided. There are secondary schools (grammar schools, secondary technical schools and secondary vocational schools), conservatoires, tertiary professional schools and higher education institutions. VET schools of all types (except conservatoires) and at all levels train specialists for all sectors of the economy. The quality of vocational training (including work placements or practical training in companies) is assured by the school. The content of vocational training is set out in the relevant curricula. Evaluation of the quality of vocational training is carried out in cooperation with the company where it takes place, and by the Czech School Inspection as part of its inspection activities. There is one teacher in each school responsible for the content, implementation and evaluation of the quality of vocational training. The teacher is regularly in contact with the workplaces where practical training takes place and together with the practical training teachers / practical subject teachers and practical training instructors asses the quality of vocational training.

Vocational education

Education which aims to equip people with knowledge, skills and competences that can be used on the labour market (distinction between vocational education and technical education is drawn by length of courses).

Technical education

Education which aims to equip people with knowledge, skills and competences that can be used both on the labour market and in tertiary education (distinction between vocational education and technical education is drawn by length of courses).

Further education

Usually is short-term targeted education typically provided following initial vocational education, and aimed at supplementing, improving or updating knowledge, skills and/or competences acquired during previous education.

Post secondary non-tertiary education

These programmes straddle the boundary between upper secondary and tertiary education, they serve to broaden the knowledge of upper secondary education graduates and are designed to prepare students for studies at the first stage of tertiary education or for direct labour market entry, they do not lead to a tertiary qualification.

Continuing vocational education and training

Education or training after initial education or entry into working life, aimed at helping individuals to: improve or update their knowledge and/or skills; acquire new skills for a career move or retraining; continue their personal or professional development (a part of lifelong learning).

Retraining programmes

Are the opportunity to undergo retraining for young people who have left education without a qualification or who cannot find employment. Retraining programmes are one element of an active employment policy. Young people take part in regular retraining courses, but receive more attention as part of counselling.

Teaching qualification

The teaching qualifications for all types of VET teachers consists of two components: vocational and pedagogical. Teachers should gain both of these components within the framework of their pre-service training. There are two models of initial teacher/trainer training:

- integrative,
- consecutive.

The integrative model is characterising initial training of teachers of general subjects. In this model all components of teacher training – i.e. vocational subjects, pedagogical psychological disciplines and practical training proceed at the same time integrated into one study programme. At the end of the studies students take final examinations on the subjects they will teach as well as on the related didactical, pedagogical and psychological disciplines. In this way they meet the requirements for vocational and pedagogical competencies. Trainee teachers, trained within the integrative model take accredited Master study programmes at higher education institutions. The curricula are developed by individual faculties. Each study programme is subject to accreditation awarded by the Ministry of

Education, Youth and Sports. The integrative model is gaining ground exceptionally in VET of teachers.

The consecutive model prevails in initial training of teachers of vocational subjects. The student is first trained to become an expert in the chosen field. Therefore the choice of subject matter and teaching methods correspond to this objective. After passing the relevant state examinations, the student achieves the qualification of graduate in mechanical or chemical engineering, economics, agriculture, etc. If he/she opts for the teaching profession, the additional requirements for the so-called “pedagogical competence” must be fulfilled. This competence is achieved through pedagogical studies which may run either in parallel with undergraduate training in the specialised disciplines, or after completion of undergraduate studies.

The Ministry of Education, Youth and Sports adopted an action plan to support vocational education and training. Its implementation should lead to an expansion and strengthening of mechanisms that increase participation in VET. The plan contains, above all, the following strategic steps: enhancing transferability within the VET system, improving career counselling and the provision of information to the general public, and facilitating cooperation between schools and employers in terms of content, funding and implementation of VET including providing incentives for this cooperation.

The National Strategy was approved by the government in 2007 - the document addresses both initial and continuing education. It contains the present state analysis and sets out main strategic aims for lifelong learning development: recognition/permeability (including recognition non-formal and informal outcomes) equal access, functional literacy, matching educational opportunities to labour market needs, stimulation of education demands, education quality assurance and development of information and counselling services. The strategy also involves links of the proposed aims with priorities of operational programmes of the Czech Republic for the period 2007- 2013.

Partnership and projects

Currently the Ministry of Education, Youth and Sports together with the National Institute of Technical and Vocational Education and other organizations participate in many international partnerships and national projects.

TTnet partnership

TTnet CR is an informal partnership network of organisations providing practice and training of VET teachers or further vocational/occupational training. TTnet CR is part of the European TTnet (Training of Trainers Network) which was founded by the European Centre for the Development of

Vocational Training (Cedefop) in 1998. Its aim is to support (the development of) proficiency of those training organisations which train teachers of vocational subjects, practice and training, instructors, and trainers for pedagogical/andragogical jobs.

The CONCEPT project

Further education following the initial education in the schools of the Czech Republic is underdeveloped. A higher participation of adults in further education is necessary to maintain the competitiveness within the European Union.
The project Concept, which main guarantor is the National Institute of Technical and Vocational Education, should thus help people to gain enough plausible information, guidance and the possibility to choose from a wide variety of quality courses matching with the labour market needs.

The principal object contains a systematic support of further education, which will replace existing uncoordinated solutions and isolated activities. This support should deliver:

- increasing participation in further education,
- better matching of the courses offered with labour market needs,
- increasing standards of further educational courses,
- development of an integrated information system, which will refer to the possibilitie

of further education and thus better availability of the further education.
Who can make use of this project?

- all prospective participants in further education,
- educational institutions offering further education,
- employers, willing to support education for their own employees and improve the quality of human resources needed in a competitive economy (the project is addressed mostly to small- and middle-scale enterprises, that have fewer resources for the further education of their employees).

The UNIV2 REGIONS project

Changing Secondary schools into centres of Lifelong learning. The aim of the project is to change secondary schools into centres of lifelong learning, ie open institutions which – besides initial education and training – will offer varied forms of further education for a variety of interested persons. Development of further education in secondary schools, as intended in the UNIV 2 REGIONS project, will enable to make better use of their good personal and technical capacities in the situation of demographic decline with decreasing numbers of pupils in initial education and training.

Project activities

Networking of schools/centres of lifelong learning:

a) creating nets of schools providing further education
intensive work with school managements and staffs – shaping and influencing attitudes;
establishing and forming co-operation between schools;

b) creating appropriate external conditions for implementation of the project's aims
communication with a range of co-operating bodies, esp. the regional authorities.

Vocational Education and Training in the Czech Republic - Strengths

According to OECD (2010) The Czech VET system has a number of strengths:

- The average academic level of 15 years-old measured by PISA is good.
- The majority of students complete their upper secondary studies; the dropout rate from this level of education is below the OECD average.
- The Czech Republic has a very impressive data base on education and labour market outcomes of education, one of the best the OECD team has seen.
- Many reforms have been launched recently, including: the setting up of a new qualification system; the introduction of a national standardised exam in apprenticeship programmes, the launch of a major new adult education initiative, and new tools to improve career guidance.
- The government is actively fostering stronger participation of social partners in VET. Sector Councils provide a good example of the co-operation between social partners and policy makers.

Educational attainment of population in the Czech republic

The education structure of the Czech population (aged 25-64) shows a low proportion of the group with only basic education and a low proportion with tertiary education. Conversely, a high proportion of the population has secondary education. (See Annex, Table 1). The low proportion of those with tertiary qualifications is attributed mainly to insufficient provision, particularly short study programmes at ISCED 5B and 5A levels. Compared to the rest of the EU, very few people in the Czech Republic have only basic or lower secondary education. Despite a slight increase in their number, it is still only half of the European average.

Population structure by educational attainment (25-64 years, %)

	ISCED 0-2	ISCED 3-4	ISCED 5-6
EU-25	34	42	21
Czech Rep.	12	76	12

(Source: EUROSTAT – New Cronos database (Labour Force Survey)

Vocational education and training (VET) has a key economic function in up-skilling and integrating young people into the labour market and in providing high quality technical skills. But in recent decades, VET has been a neglected part of initial education: education policy research and reform have tended to focus primarily on school and tertiary education.
Annex 1 Education system of the Czech Republic (year 2010/2011)

Source: Richard Veleta (2010): Specifics and Development of Professional Competences of the VET Teachers and Trainers, unpublished dissertation, p.146

The tutor in the e-learning

The specifics of the educational activity of the tutor in the distance education

Each educational institution which considers the alternative to offer its education products through the distance education or through the combination with it, should considers not only its readiness to the creation of the particular study materials and the other, but also the degree how it is able to engage the specialized educational employees for this type of the education. The non traditional educational status which belongs them in the system of the distance education ranges them to the special category called tutor.

The tutor contra the lector (the teacher)

The tutor's role is the one of the most difficult role in the distance education. Who is the tutor? What does he do? What's the difficulty of his work?

The tutor is the main educational professional in the system of the distance education. He's the connecting link between the student and the educational institution, but also between the methodical mediator of the distance education and the evaluator of his running results. It's the very specific and totally incommutable role, which presents the wide range of activities and actions where is the tutor professionally applied.

All of the educators know very well how much depends on the good work of the lector or the teacher in the direct teaching „face to face". The quality of the tutor's approach and activity has explicitly the decisive meaning to the success for the self –studying (distance) students. The teacher in the present form of the study and the lector in the direct study are in the immediate contact with the students. It comes to the immediate mutual reflection during the teaching, so there is the real momentary reaction of both sides involved in the educational process. Anything can be explained, exercised and solved in the moment. It can react to everything immediately. The teacher or the lector functions not only as the mediator of the education, but can also immediately act as the adviser who helps to overcome any kind of the studying problems. Thanks to the frequented straight contact with the

students he has got many possibilities how to express his support.

However the participants of the distance education study on their own and separately, without the straight contact with the teacher. The geographical distance, the isolation, the minimum time for the study and the limited contact with the educational institution – these disadvantages for the students are needed to be neutralized. Within the sophisticated system and the organizing ensurance of the whole distance education (including the high-quality study materials) is just the tutor who participates in the great degree in this compensation.

Who is the tutor

The term TUTOR is from English. It makes possible to distinguish the specifics of the educational person in the distance education from the classic teacher or lector. The tutor is in the closest contact with the students and has the characteristics and exactly defined duties. He is taken by the educational institution to control the students in the certain program unit (subject). He continuously looks after the group of about 20 students, he helps them with the study difficulties, but he doesn't teach. He leads the present forms of the study, so-called tutorials, if they are indicated, he consults with the students according to their need in the written form, by the telephone or electronically, he evaluates the running tasks. He monitors the study progress and warns the educational institution about some lacks of the existing study module (e.g. about the repeating problems in some extracts in the study text etc.) The tutor is the closest helpmate for the student.

The tutor mostly works in the scope of the one study subject (module), but according to his professional specialization he can also works in the educational institution as the tutor used for more disciplines. The tutor isn't the teacher in general meaning of the educational function, that's why can have many "pedagogues, trained in the classic way" the objective problems to identify with this role. This identification goes much better with the experts from the profession or with the educators who have some experience with the adults educating.

The tutor doesn't teach, doesn't lecture, but he supports the students in their study in different way and with available tools. He operates more than "the coach" and evaluator of the individual tasks, who regulates the process of the learning with the effective communication in the assigned group of students.

The tutor's work assumptions

The specific proficiency and knowledge of the theory and especially the practical skills are the principals of the tutor's successful work. To these skills belong especially the perception ability, the empathy, the communication skills and the ability to apply the knowledge, especially of adult psychology and

didactics in leading and supporting the teaching of the most abundant student's clientele in the distance education, which are the adult participants of the education. The positive relation with students, interest of this activity, equanimity, willingness to work on yourself, these are another qualities which the tutor should not be missing. These qualities make possible that the tutor is able to manage the role of a guide and as the students' support at distance study.

The tutor can work as the internal employee of the education institution, but also can be the external assistant who do his tutor work with his job. We have to remember that the degree of tutor's charge can be unbearable, if we have in our minds that the tutor theoretically should be available to his students in every time (the telephone, the e-mail), so they can ask for help, advice or special tuition in the time, when they attend to the study hour. In the practical way this is limited by the agreement between the members of the study group and the tutor. Despite the tutor have to realize that his activities are more difficult and especially more frequented than it is in the full-time study. On the other side there must be valid the definite communication rules between the tutor and the students.

There are the students' guidebooks, which should be elaborated for every course or educational syllabus and should be given to students at the beginning of the study. They must mention in which time interval is the tutor due to answer the student. Especially the communication through the e-mail can lead the students to think that a tutor will answer on their inquiry or sending the task immediately. The tutor must have the enough time interval to process the superior answers or to elaborate the tasks' evaluation or the individual work. On the other hand it is very important that the student gets his answer quickly and won't delay him in the study continuing.

The other indispensable requirement on the tutor's work, especially in the last few years, is his skill in the area of exploitation the informational and communication technologies. The thing which is classified very positively at the students' communication with the tutor is for e.g. the creating of own www page, through which can the tutor introduce himself by the information about his person, the special qualities, can provides his photo etc. From the e-learning tutor are required more sophisticated technical skills, especially at on-line education.

The tutor's activities

Within the scope of the tutor's working he does many activities. It doesn't matter if it goes about the manager activity in the context of the study regulation, administrative work, consulting service or the other. In each of them the tutor fulfills his set duties and tasks. Some activities are blend together, in some of them is the tutor obliged to stylize himself in the role of ''the facilitator'', the consultant, the navigator, eventually fulfill the another unspecified functions.

The manager activity demands from the tutor the organizing and managing abilities. There belongs for example the reasoned permission of terms shifting of giving individual works, deciding about tutorials' content and organization, the participation on evaluating process.

Although the tutor should not drown in heaps of paper, he is obliged to deal with office work, too. He fills various forms and evaluation, makes the tutorials' presence, files every works from the study participants, he makes the portfolio of every student. For this activity creates the education institution written manual, the exact, obvious and understandable instructions, what and how to make it, when and where have it his students and the tutor send it. This tutor's activity is greatly simplified if the educational institution exploits for its operating the electronic setting – so-called LMS (Learning Management System).

The consulting service is the important part of tutor's working. The tutor is an adviser for students in their study things he helps them in processing of their individual study plan or their typical process in the study if it is desired. He helps with solving students' individual problems which are formed during the study and influence its process and outgoings. The tutor is very often in the situation when students come with their individual problems.
But as the dominant stays the education activity which gives the tutor's work the definite orientation and concretization which project in the student's practice, the graduate's profile and into the degree of his study achievements.

What creates this activity? In what we can see its specifics and specialties? Does it differ methodically from the traditional educational actuation in the straight education alias the education "face to face"? Are necessary some special competences for it? Is it the tutor's influence on the quality of students' learning so much important?

The tutor's education activity

The basic part of tutor's education activity in the distance study is a change of the educator's conception. There the tutor isn't that educator who ensures the transfer of knowledge, but he becomes the supporter of the individual study and the process of the creation of knowledge. In addition to this the education working of tutor demands very sensible communication both in the indirect communication with the students (telephonic, written and electronic) and within the frame of open communication on tutorials. The mode of the communication goes through all tutor's education activity very expressively and within the tutor:

- he formulates and sets corresponding tasks – TMA (Tutor Marked Assignment) or he chooses and concretizes them (if they are the parts of given module),
- he evaluates the partial tasks and also the assigned the students' individual works

(TMA), judges the quality of its elaboration and reacts on them in written form (the tutor must value not only the partial content task of the work but also its formal requirements and another aspects which represents the special quality of the elaboration),

- he answers (by telephone, by e-mail, through LMS) the students' questions relating to the objects of the study materials, instruments and content of teaching,
- he regulates his own process of students' learning, he navigates them when they misunderstand the curriculum,
- he rectifies the wrong train of thoughts,
- he provides the students the feedback on their process in the study and how they manage with the tasks,
- he reminds the students of the content, of the urgent of some tasks and that it is time consuming,
- he decides about the tutorials' contents if they are indicated, he prepares his own continuity for them, he guides and regulates their process.

The tutorial guidance as a part of the tutor's education activity

What in the concrete means the term tutorial? It is a present, mostly the voluntary, meeting with students and a tutor, whose aim is to get the briefing on study duties and the individual works requirements. In his job description is also to answer the individual inquiries about the study or to some parts of the curriculum. The tutorial serves to the personal meeting where the students can inform each other about their study problems, discuss some partial passage of the studied parts or the tutor's advertised theme in advance, convey and comment on the results of the individual works. The tutor reacts within the tutorial on the participants' questions, he warns to more frequent mistakes and problems relating to individual works processing (TMA), gives some information about the study methodology, navigates and motivates the students and urges them to be careful and consequential in the study.

The important parts of the tutorial are in some disciplines the projects, the laboratory work, the skill training and the problem solving teaching (solving case study, inscenation methods, brainstorming, etc.) The tutorials are compulsory if it goes about skills necessary to the achievement of education aims or the earlier mentioned activities realized within the so-called summer schools, workshops etc. To its' graduation are the students given notice in advance (most often already in the education offer).

The voluntary tutorials have got rather the socialization function. The occasionally contact with the tutor and "schoolmates" is right necessary for some study participants who need to share their worries and want to physically see that who evaluates their works.

In order that the tutorials will be effective the tutor should be able to:

- create at these meetings the kind atmosphere, the wellbeing and the mutual cooperation between the study partners,
- involve the all students in the group or collective work,
- moderate and regulate the process of the tutorial, lead the discussion and support the cooperation between the students, the all draw in the problem solving teaching, especially the less active students,
- listen actively, put the questions, enter into the discussion, manage and evaluate it,
- regulate and revise also the controversial discussion contributions, the uncontrolled emotions of some speakers, straying from the subject or verbalism of some individuals,
- react to unexpected impulses, be able to improvise or find alternative solution to incurred educational situations.

The evaluating size of the tutor's education activity

To the tutor's education activity inseparably belongs the ability of supporting the students in their educational effort in every possible way. The general principles of distance study are to help all who are motivated to study and are willing to attend to it the all of your free time and comfort to get successfully through the study. Of course it is with the same requirements and outputs like in present students study or face to face.

Hence the distant education is based on the different approach to students. To the approach, that minimizes the decrease of students' self-confidence and mobilizes their study efforts.

The tutor participates in this approach primarily with the effectual motivation and the students' differentiation. Within this he must be able to:

- diagnose the individual pedagogic – psychological specialties and specifics individual students on the basis of the analysis their portfolio, the perception from the realized communication and from the available information,
- respect the difference of abilities, study motivation and learning style in some individuals with the usage of the different approach to students,
- help the students to overcome the study difficulties of various kind, lead them to the open communication with a tutor,
- encourage them, activate and generally interact (in evaluating way) especially to doubtful and less assertive students,
- motivate and regulate stagnant and troubled students.

The tutor - the subject and the object of the evaluation

The evaluation is the essential part of the tutor's education work. The tutor participates on

the distance study by that:

- he evaluates the quality and the didactic efficiency of study materials,
- he is the evaluator of the study product (the study content, the study standby, the study organization, the communication with the students and their quality preparation),
- he evaluates the process and results of the study of particular study group members and also the study group as a whole,
- he evaluates the course and the result of the tutorials (if it is the part of the study),
- he gives the information to the study guarantee (the course) about this evaluation,
- he does the self-reflection and auto-evaluation (self-assessment) his own influence in the role of the tutor.

If we look back on the mentioned dominant tutor's tasks which form the important content of his education work, we are sure that the most of these activities does also the teacher or the lector. But the difference is between the quality and the time rate which belongs to these activities in the study "face to face" against the intensity of the distance study.

So it is necessary that tutors have to be properly trained for their job and be systematically monitored during their working and evaluated both with the course manager (education) and the participants themselves. Only the superior tutors will get the other new contract.

Tutor and the study success

To be a competent tutor of the distance learning programmes requires much more skills than some theoretical training in the issue of distance learning programmes. There's also needed the human point of view in the tutor's work that doesn't need to be proper to all educators. The multimedial communication which has to replace personal contacts „face to face" is often more intensive, frequent and more individualistic (with more intimacy). It requires another approaches to the students and more personal interest in them.

It's possible to express doubts that the rank of study participants especially those highly motivated and ambitious don't need their tutor in this point of view. However how many of them do we know? Notably if they are economically active and professionally workload adult students.

Experiences mark that tutor can have the markant influence on students and their success. The adults approach to the studies with their self-assessment and self-reception and are more worried about their preconditions to be good at work, they think more emotionally about the studies. They are very interested in charging of their roles in the life and notably in charging of their student's role, if they are successful and lucky they have the feeling of self-worth and independence.

However if they are not successful they will loose their self-worth and will doubt about yourself. They need to be highly praised, encouraged, sometimes navigated and need some help to find out the best way. They prefer the way of studying by which they can reach the maximal profit and utility,

they prefer the way where they can use the maximum of their knowledgebase. They like the atmosphere of the creativity, the cooperation, the partnership, the chance to discuss their questions and the possibility to analyze the issues. If the tutor would accept all of that and would properly use it in his activity, the success would be guaranteed.

The conclusion

It would be possible to analyze particular parts of the work of the tutor in distance study more deeply. We would get other and other specifics and specialities which administer to the more effective teaching especially to adult students. In spite of that it is evident from above mentioned that the importance of his educational effect and the current ness of this role is beyond the question. It can be expected that in the nearest future the ability to hold the role or the function of the tutor of the distance study, also the e-learning tutor or blended learning (the combination of electronic and present education) will become not only the above standard kit of the teachers, the lectors and another providers of the teaching service, but rather their professional competence.

Results

The Czech part of the DETVET questionnaire was set up at the Institute of Education and Social Studies, Palacký University in Olomouc 19 VET teachers at the Institute filled in the questionnaires with the questions about andragogue techniques, coaching, entrepreneurship and innovation, distance form of learning and self- study, social media and web 2.0 tools, and ICT tools for learning and networking.

The profiles of the Czech respondents are:

- they teach social sciences, social psychology, IT and communication, pedagogical sciences
- 18 of them have a background with vocational training and a pedagogical education
- 17 of them have a university-master degree
- 5% have been working as VET teachers for 1 year
- 47% up to 5 years of practice
- 16% up to 10 years of practice
- 32% more than 10 years of practice
- about 11% are male
- about 89% are female

The most remarkable results and figures from the Czech part of the questionnaire are:

2.1

- nearly 53% knows methods or other means to define learning needs but they don´t use them
- more than 68% use means for monitoring of a course quality – which is surprising!
- everybody knows Activating methods in realization of a study programme

2.2

- 58% develop individual action plans with their students based on the study plan
- it´s very common to have individual discussions with the students to follow up their results and progress
- 68% of the respondents use Problem Based Learning and Case methodology

2.3

- 100% use different methods of stimulation to motivate and encourage the potential of the students, even 42% use them frequently!
- There is no one who knows anything about E-portfolio
- 37% use E-portfolio in their work frequently
- the same number of respondents either use tools for creating ideas or don´t know them
- 74% have no experience with cross professional/cultural innovation courses!
- the same number don´t know anything about participating in competitions but there are few who want to learn it!
- more than 73% teach core skills in marketing and business planning
- 1/2 of respondents want to learn how to promote competencies for co-responsibility or co-employment
- about 2/3 of respondents would like to have innovation classes or courses
- nobody uses external contact(mentoring or coaching related to business) but more than 1/2 want to learn it!

2.4

- more than 84% use self-study or distance texts
- 74% don´t know about off-line correspondence or off-line phone
- more than 1/2 use on-line e-mails, there are only few who don´t know about it
- 3/4 of respondents use Learning Management System, a half of them very often
- more than 1/2 use tutorial in groups

2.5

- 1/2 knows some of the blogs and uses them
- 1/2 knows they exist but they don´t use them
- only 1 respondent wants to learn LeMill
- more than one half don´t know anything about Twitter!

2.6

- everybody uses e-mail and word processor, more than a half uses them very often

- 100% knows Power point presentations but 1/2 don´t use them!
- 3/4 of respondents don´t use Smartboards even if they are available!
- a pretty big number want to learn photo and sound editor + web conferencing!
- more than 1/2 don ´t use E-portfolio, only 2 respondents want to learn it

At the last question the respondents choose an area of education approach to improve, and the Czech respondents are interested in the two areas of Coaching, Social media and Web. They show the least interest in the area of andragogue´s practice.

The most surprising answers

The questionnaire has pointed out the fact that most of questioned respondents were women as its usual even at the Academic field.

Surprisingly big number of respondents at least have heard of different blogs although they don´t use them but they would like to know it.

Approximately half of respondents use techniques based on coaching but there are a lot of them who want to learn much more about Problem Based Learning or individual action plans.

Conclusions

How did we do

Our questionnaire was set up at the Institute of Education and Social Studies, Palacký University in Olomouc. 19 interviewed VET teachers studying at the Institute filled in the questionnaires to find out their actual educational needs.

What did we see

A lot of VET teachers use e-mails to communicate with their pupils. E-mails are mainly used to transfer information, send and receive homework and studying material. We learnt that the Czech respondents were willing to learn more about the two areas of Coaching , Social media and Web. For Czech VET teachers, the Czech team and other university teachers of the DETVET project, it was a great challenge to focus on saturation of actual needs. University teachers considered using ICT tools as something common among their students but they turned to be mistaken. That´s why they have decided to implement it into the university curriculum.

Many new ideas and problems have been implemented into curriculum of bachelor´s study plan in Teaching of practical instruction and vocational training. It is a combined form of study for the teachers who have already been teaching at secondary vocational schools completing their qualification. These teachers pay attention (with regard to demographic development in CZ) not only to professional preparation of the students ´population at the age 15 up to 18 years but also to adult professional education.

These are above mentioned disciplines:

- **Practicum of didactic technology I** at 1st year of study (37 students)
- **Practicum of didactic technology II** at 2nd year of study (34 students)
- **Marketing school communication and Teaching practice** at 3rd year of study (28 students)
- **School management** (as a part of VET teachers´ qualification) is another discipline into which it was also implemented (they are graduate professionals completing their pedagogical qualification - 41 people)

Having passed all the disciplines the participants of these activities formulated the benefit gained from the particular discussion meetings as follows:

- They pointed out increasing their self-confidence in the field of communication via Social networks in comparing with much younger students for whom this communicating seems to be a piece of cake.
- They came out their inspiration and ideas for using Social networks to intensify the belonging among the students within the classes or study groups of adults in a distance form of study.
- They presented their activities focused on using new skills for Marketing school communication, they emphasize sustainability of mutual contacts between the school and its graduates. The main aim is to encourage the school graduates´ interest in life-long educational programmes and to empower their belonging to future life and school development.
- Some students of 2nd year of study were strongly influenced with new ideas and skills in choosing the topics of their bachelor´s thesis.

What to do now

The teachers have realized the existing relation between generational differences and their willingness to use ICT tools. One of the main problem for a lot of older teachers (both VET and university) is that they are willing to implement new methods but they lack time to do it and how to do it. Although majority of today schools have their own PC's laboratories, the main need is to train teachers to use virtual environments and to change their attitudes towards ICT. Most degree programmes were welcome to share project blog and comment on what is happening there.

The DETVET project has opened the dialogue in the field of exchanging partners´ experience and new approaches to teaching methods and techniques during the six meetings.

Chapter II

DENMARK

Vocational Education and training in Denmark

The Danish vocational education and training programmes are alternating or sandwich-type programmes, with practical training in a company alternating with lessons at a vocational college

In Denmark the vocational education and training (VET) programmes includes a basic –and a main programme. In order to accomplish the main programme, the student has to enter into a training agreement with a company approved by the social partners (a confederation of representatives of employers and employees). Approximately we have 125 VET programmes in Denmark, and each programme lead to a number of vocational specialisations.

The VET capacity

In Denmark the basic VET programmes are offered by 117 institutions. 97 of these are technical colleges, commercial colleges, agricultural colleges or combination colleges. In addition, 20 colleges offer social and health care training programmes.

In addition to the basic VET programmes, the colleges offer vocational upper secondary education (Higher Commercial Examination, HHX, and the Higher Technical Examination, HTX) and further education and training for adults (C-VET called AMU: Adult Vocational Training). Most of the vocational colleges cooperate with other colleges to offer short term higher education, and some of the colleges offer courses and programmes commissioned by companies too.

57 percent of a Danish youth is admitted to a VET programme. A declining part of the youth enter a VET programme right away after finishing the compulsory education in “Folkeskolen,” and a growing part of the youth has experience with the labour market or has completed an upper secondary education before entering the VET programme.

Approximately 38 percent of a Danish youth obtain a vocational education. Around 10 percent of them go for a higher education subsequently, and around 90 percent of the vocational educated stays with their vocational education as their highest completed education.

The objective includes the personal skills

The objective of the Danish VET programmes has two angles. One angle is to motivate a youth to complete a programme of training, and get them qualified for an employment. Another angle is to accommodate the needs of the labour market. With the objective in two angles, the programmes strives to develope the personal and social skills, give the student a desire to further education, and at the same time, an active participation in the Danish society. All the programmes stimulate

the awareness about innovation, the environment and the internationalization among the students. The target group of the VET programmes isn´t only young people, entering the VET programme after finishing the compulsory education in “Folkeskolen” (primary and lower secondary education). The VET programmes forms a part of the offers within lifelong learning, and the adults with prior vocational experience, becomes a part of the target group for the VET system too.

The structure of the VET programmes

As mentioned above the Danish VET programmes includes a basic –and a main programme. The basic programme is flexible in duration, depending on the qualifications and ambitions of the student. Typical length of a basic programme is between 20 to 25 weeks. The basic programme is followed by the main programme, which is based on an alternating principle. In generally the main programme takes 3 - 3½ years, and it can be shorter or longer for some programmes (1½ years up to 5 years). In order to complete the main programme, the student has to have a training agreement with an approved company. The training agreement is compulsory for the main programme, and can cover parts of -or the entire basic programme too.

In Denmark we have around 125 VET programmes. The basic programmes are gathered in the following 12 vocational basic clusters, and each of them is leading to a number of related vocational programmes:

1. Motor vehicle, aircraft and other means of transportation
2. Building and construction
3. Construction and user service
4. Animals, plants and nature
5. Body and style
6. Human food
7. Media production
8. Business
9. Production and development
10. Electricity, management and IT
11. Health, care and pedagogy
12. Transport and logistics

Educational guarantee

If the student is admitted through one of the 12 basic programmes above, the college guarantees the student the opportunity to complete one of the programmes within the basic programme. If a student is unable to obtain a training agreement, the educational guarantee gives the student a

school based practical training (a practical training period conducted by a college), or one of the short vocational programmes, conducted as school based education without a practical training period.

The basic programme

The students knowing their wishes and plans for their education, often takes a targeted basic programme. On the other hand the students, who need to identify their wishes and try out their skills and interests, often takes a broader basic programme. Some students need to brush up their knowledge upon their basic school, and other students wish to choose higher levels in the general subjects to be able to continue in a higher programme afterwards. The student has the option to prolonging the basic programme for up to 40 weeks, and for the student with prior learning, the programme can be shortened as well.

The main programme

After finishing and passing the basic programme, the student only is admitted to the main programme if he or she has entered a training agreement with a company. In the main programme the student alternate between practical training in the company and lessons at the college. The periods at the college are organised as blocks of 5 to 10 weeks. According to the principles of the sandwich-type programme, the major part of the practical training in the VET education takes place during the main programme, in an interaction between lessons at the college and practical learning and experience in the company.

Provision for the colleges and wages for the students

The school based part of the VET programmes is financed by the state on the basis of a taximeter system (pay per student). During the internship the student is on full wages in their company. When the student is attending the college, the Employers' Reimbursement Fund reimburses the company for the students wage. All companies, both public and private, contribute a fixed annual amount for each of their employees to the Employers' Reimbursement Fund.

Trainee wages

The lessons at the college is free of charge for the students, and the students at the basic programme without a training agreement, are granted by the Danish State Education Grant and Loan Schemes. However, the students with a training agreement are paid wages from their company. The wages are following the wage scales for trainees in the various industries, and are situated between monthly DKK 8000 and 12000

The two groups of competencies and the link between practical training and theoretical learning

The objective of the programmes is described as competencies. All the programmes contain two groups of subjects and competencies. One group is a group of general vocational subjects and competencies, the so-called basic subjects, another group is the group of professional subjects attached to each programme, the so-called area subjects. In addition, all the VET programmes have incorporated, at least one area with a specialisation consisting various subjects.

Practical training takes place in both the company and the college, while theoretical teaching primarily occurs at the college. The college is responsible for organising the teaching in a holistic manner, and the colleges have the equipment that enables them to introduce the student to the practical tasks and operations in the programme.

Often the students in the VET programmes prefer teaching in practical subjects instead of theoretical instructions. To oblige the students and to engage the students in the learning process, the didactic approach in the VET programmes is continually to link the practical training with the theoretical learning. Like this the lessons in the basic subjects as Mathematics and English, take its starting point in the specific matters in the student's work and practical tasks, and often the lessons in Mathematics and in English for a carpenter and an electrician have to be different.

Steps in the VET programmes

In order to increase the flexibility of the programmes, allmost all Danish VET programmes contain one or two steps. During the programmes it´s possible for the student to stop the education at a well-defined step, and still get a professional competence. If the student later on wants to return and continue his or hers education, it´s possible for the student without prolonging the total duration of the education.

School based practical training

40-50 percent of the vocational programmes are offering a school based practical training for students without a training agreement with a company. If the student after finishing the basic programme, and within a reasonable time limit (2 months), hasn´t succeeded in getting an agreement with a company, or if the company during the student´s placement is forced to close down, the school based practical training can be utilized.

The New Apprenticeship

Students who prefer practical training to school attendance can commence their vocational education in a company. In the so-called New Apprenticeship the student enters a training agreement with a

company for the basic programme, and parts of the learning and lessons at the college, are substituted with practical learning in the company. The New Apprenticeship has been introduced to make access easier for students inclined towards learning through practical methods. In some of the technical vocational programmes, about 40 percent of the students choose The New Apprenticeship. At other VET programmes, the percentage of students using The New Apprenticeship is very low.

The individual VET programme

If an area of work and skills hasn´t got a VET programme, or a programme close to its skills and workflows, an individual VET programme can be organised for the student. The student has to enter an agreement with a company, and the individual VET programme can be composed by elements from various VET programmes. The Individual VET programme, as an alternative to an ordinary VET programme, has uptil now only been used by a few numbers of students.

Competence assessment, personal education plan and education book

Competence assessment, personal education plan and education book

All students must have their competencies assessed in order to receive credits for prior learning. On this basis, the student, the college and, if appropriate, the company, draw up a plan for the student's training. The plan can be adjusted if the student changes his or hers educational plans during the programme.

The student's results – e.g. the marks and the guidance the student receive - are entered in the student's education book (portfolio/log-book), and in this way the education book tells the student what to improve. With the personal education plan and the education book, drawn up in an electronic system, it´s possible for the student, the teacher, the company and the administration at the college to follow and consider which parts of and subjects in the programme the student has completed, and which the student still need to work with.

Guidance

The college has a number of educational counsellors to support and guide the students in completing their programme, and the college is obliged to assist the student to find an internship too. To contribute the educational environment at the college and to support the students in their studies, the students at a vocational college is assigned a 'contact teacher.' Students with special needs are supported by a mentor, and if needed the college offers psychological support to the student too.

Teacher qualifications

Generally the teachers in the VET programmes have completed a vocational education in the area in which they are teaching, and often the VET teacher has a higher education too. In the area of general subjects, the VET teachers often have a Bachelor or a Master's degree. The requirement

of professional experience to be a VET teacher is a minimum of 5 years, and in the area of general subjects the requirement is 2 years of professional experience. Generally the teachers without a pedagogical training, have to finish a pedagogical training course for VET teachers, within the first 2 years in the job as a teacher. The VET teacher is obliged to keep his or hers academic and pedagogical knowledge up to date. The college is required to draw up a plan for the competence development of the teachers at the college. On this basis and in cooperation with the teacher, the college determine a plan for the teachers professional upgrading.

Tests and examinations

Generally the basic programme is finished with a project assignment and an oral test. The purpose is to demonstrate that the student has achieved the required competencies to enter a main programme. The final project at the basic programme contains practical and realistic tasks, and is assessed by an external teacher from another college or a professional from a local company. In the end of the programme, the student has to pass the final practical and theoretical examination (journeyman's test). The final examination is carried out with external examiners from companies or the trade committee, who often has developed the final tests themselves.

The political structure behind the VET system

The Danish Parliament (Folketing) determines the general framework for the Danish VET system, and the VET programmes are all governed during a target and performance management. The Ministry of Education is pointing out a Council for Vocational Training. The members of the council is representatives of the social partners, the teachers and the students, and The Ministry of Education is allowed to point out special experts for the VET Council too. The task of the VET Council is, on a general level, to give advice on the educational issues in the VET system, e.g. on structure, accreditation of colleges and on the framework for content and assessment in the programmes.

The trade committees

The employers and employees set up a number of trade committees. Within the general framework, the trade committee describe the detailed content of the VET programme. The description from the trade committee applies to and outlines the duration and the structure, the objectives and the assessment, and the relation and weighting between practical training and school based teaching in the programme. The trade committees are obliged to follow the development on the labour market, to take the initiatives to new VET programmes, and to adjust or close existing programmes. In new job areas with no existing trade committees, the Ministry of Education is pointing out development committees to start up new VET programmes.

Local education committees

For each of the programmes at the colleges, the trade committees are pointing out a local education committee. The local education committee is required to advise the college in their implementation of the programme, to build up contacts and cooperation with the local industry, and strive to increase the number of internships among the students.

The external and the internal quality control

f the vocational college wants to offer a VET programme, the college has to apply the Ministry of Education to get accredited for the programme. It´s required too, that the college has a quality control and management system for continuous quality assessment and development. A part of the quality system is a self evaluation at the college, and all the results from the quality control, and a follow up plan for the improvements, have to be published at the college website. To compare the quality work and for mutual inspiration, the colleges often participate in networks of colleges, and often the colleges and the VET programmes are scrutinised in evaluations, carried out by The Danish Evaluation Institute.

The Danish way of innovation and entrepreneurship

Reflections on Innovation, Entrepreneurship, and Intrapreneurship

The Danish contribution at the DETVET project is called innovation and entrepreneurship. At SDEwe have experience with both innovation and entrepreneurship. In the Danish rools and regulations for the VET educations, the Ministry of Education have several articles emphasizing innovation and entrepreneurship at all levels in the education programmes. The two concepts often are mentioned as in one word. As if we can´t work with or teach in innovation without dealing with entrepreneurship, and vice versa. It is our experience too, that the two concepts are related, but not as one coherent concept. We see innovation as a need, if you want to work as entrepreneurs. On the other hand, we know that it is possible to start up companies without using tools from the innovation-toolbox. In our attitude to the innovation and entrepreneurship, the toolbox for entrepreneurship contains hardcore management tools as business plans and tax accounts, while the innovation is dealing with such as creating ideas, for one person and in teams.

In the following we are going to define how we work with innovation and entrepreneurship at SDE College and also how we define the theme. A classic approach would be to concentrate on the core diciplins of Entrepreneurship such as Marketing, Finances, Investment, and Procurement. But our focus is somewhat different.

Innovation skills for both entrepreneurs and employees

In Odense our work with innovation and entrepreneurship is dealing with two different areas of knowledge and practical work. Still the two concepts are tight related, but one of our basic attitude in our work, has been to emphasize the skills for innovation, as important in all situations. We see the innovation – and hear the companies say that too – as a necessary group of competencies in all jobs. In that way we are talking about both entrepreneurship and intrapreneurship. Our students need the innovation for ideas to start up new companies, but in a modern company and in a modern management system, it is evident to be innovative in any job, as well – and in the end, all our students can´t or ought not to start up their own company.

The major part of our students will face the challenge of a changed labor market once they leave the college. This labor market –according to our believes – will be characterized by a higher degree of international division of labor and further to that we see that a major part of our students will not be hired in the companies in the conventional way rather they will become independent consultants each with a specific profile and a bag of competences ready to be used.

How do we see innovation

In general we subscribe to the following broad definition of innovation as a change in the thought process for doing something, or the useful application of new inventions or discoveries. It may refer to an incremental emergent or radical and revolutionary changes in thinking, products, processes, or organizations. Following Schumpeter (1934), contributors to the scholarly literature on innovation typically distinguish between invention, an idea made manifest, and innovation, ideas applied successfully in practice. In many fields, such as the arts, economics and government policy, something new must be substantially different to be innovative. In economics the change must increase value, customer value, or producer value. The goal of innovation is positive change, to make someone or something better. Innovation leading to increased productivity is the fundamental source of increasing wealth in an economy.

Innovation is an important topic in the study of economics, business, entrepreneurship, design, technology, sociology, and engineering. Colloquially, the word “innovation” is often synonymous with the output of the process. However, economists tend to focus on the process itself, from the origination of an idea to its transformation into something useful, to its implementation; and on the system within which the process of innovation unfolds. Since innovation is also considered a major driver of the economy, especially when it leads to new product categories or increasing productivity, the factors that lead to innovation are also considered to be critical to policy makers. In particular, followers of innovation economics stress using public policy to spur innovation and growth.

The Innovation Class – network, diversity and curiosity

According to the DETVET project, our contribution and presentation has focused on innovation. This priority is a good present picture of our attitude to and work with innovation and entrepreneurship at SDE. At the present time our main task in this area is our Innovation Class. The Innovation Class is a cross sectorial offer for students from every kind of VET programmes at SDE, and the class is about ½ year old. Cross college wise the students are invited to participate in this add-on module. Every Friday they meet outside the college in an incubation centre run by the municipality. Here they mingle with entrepreneurs an get lectures on various issues concerning innovation. Eportfolio, The Creative Platform, KUBUS etc. They hear presentations from rapid prototyping companies and participate in excursions to business’ where entrepreneurship has priority. First and foremost they learn the importance of networking and teamwork.

The group will have to work on an event. They are presented with a challenge - this year it is the Harbour Festival in Odense – where they have to come up with an idea in form of a gadget, and installation, an add-on, a web-tool, a machine anything that can boost and/or highlight the theme

of the festival. This concrete object will then be the vehicle for the training and hence the training will be organized by the students. They work together with different professional backgrounds, they require compentences when they need them and the staff that the college provide will act as consultants/experts within their respective fields.

At the Innovation Class we have experienced that it is possible for us to offer and work with innovation skills and tools, no matter what education and what trade the students are dealing with. The tools for creating ideas are not linked to a certain subject or trade, while the tools for the entrepreneurs much more depends on the subject and the trade. The notions in our approach is diversity. Diversity in profession. Diversity in ideas and concepts. Diversity in experiments. Our basic assumption is that the students have a wish to learn and that they have a natural curiosity.

…and it all starts with innovation

All lessons in the innovation class are – as mentioned above - moved outside SDE, and takes place in a house for incubators in Odense. It is supporting our focus on network, teamwork, and some of the students dream about being their own master. At the house for incubators the students meet the up coming business people and get inspired by their ideas and their go-for-it attitudes.

In a longer perspective we might angle and widen our innovation class towards the tools for entrepreneurs. Some of our students in the ongoing innovation class have even asked for it. Our students now are familiar with creating ideas - even in teams - and some of them now wants to carry out their dream about being their own master in own business. In a longer perspective our innovation class might work with e.g. simulated business plans and we might build up experimental companies or stores in cooperation with existing companies and e.g. Young Enterprise.

However, our basic SDE-attitude to innovation and entrepreneurship still is, that it all starts with Innovation. Innovation is the pre-skills in both existing jobs and in improving new jobs and companies.

Results

The Danish part of the questionnaire was settled at the Centre of Visual Communication at SDE,Odense. 18 VET teachers at the Centre filled out the form with the questions about andragogue techniques, coaching, entrepreneurship and innovation, distance learning and self-study, social media and web 2.0 tools, and ICT tools for learning and networking.

The profile of the Danish respondents is:

- they are teaching in IT programming, graphic design and communication at VET level?
- 6 of them have a background with vocational training and a pedagogical education
- 7 of them have a teachers education, shortcycle and BA
- 5 of them have an university-master degree
- 61% have been working as VET teachers in more than 5 years and 22% in less than 1 year
- 61% are more than 45 years old
- about 72% are male
- about 28% are female

The most remarkable results and figures from the Danish part of the questionnaire are:

- nearly 50% knows and uses the mentioned methods and techniques for teaching adults
- less than 20% don´t know any of the andragogue techniques

- surprising big number knows and uses elements and techniques based on coaching
- very few don´t know anything about coaching

- E-portfolio is wellknown, but still far from 100% in use
- about 1/3 of the respondents knows E-portfolio, but do not use it

- less than 1/3 don´t know anything about tools for innovation
- surprising few uses or promote competencies for selfimployment and for preparing businessplans

- about 1/3 don´t know anything about distance learning and self-study

- very few of the respondents uses Facebook and Twitter in their lessons
- about 20% uses Facebook og no one uses Twitter

- more than 75% knows blogs, but only 10% use it frequently
- another 10% don´t know anything about blogs
- surprising little use of web and online communication in the lessons
- more than 65% uses e-mails and more than 10% don´t use it at all
- Power Point is well known and widely used with 50% of the respondents as users, and less than 50% as frequently users
- 82% of the respondents doen´t use Smartboards, even if the Smartboards are available

At the last question the respondents choose an area of education approach to improve, and the Danish respondents shows a big interest in the two areas of coaching and IT tools. The lowest interest was given to the social media.

The most surprising answers:

At our presentation for the members in the DETVET project, we in particular emphasized the surprising results at five areas:

- We were surprised that coaching turned out to be a well known concept. A big number of the Danish respondents are using coaching elements, and less than 10% don´t know anything about coaching.
- We were surprised that we are not near to 100% on the use of E-port folio. Around a third of the respondents know E-port folio, but don´t use it.
- We were surprised that a third don´t know anything about distance learning and self studies
- We were surprised that so few use web and online communication in their lessons. Only a fifth use Facebook and no one Twitter. More than three fourths knows blogs, but only 10% use it regularly, and another 10% don´t know anything about blogs.
- And finally we indeed were surprised that a fourth of the respondents point out coaching and IT tools for improving, and very few (less than 10%) takes an interest in the Social Media

Something in common – cross culture and cross nationality

At our presentation in Italy we compared the Danish answers with the Swedish results, and we noticed some identically tendencies. In the Swedish questionnaire we recognized the same big interest in coaching, and exactly like the Danish respondents, the Swedish teachers show a low interest in E-port folio, online communication and Social Media.

The Swedish respondents have more females (46,66%) than the Danish, and the Swedish respondents are older (46,66% more than 55 years old) than the average age of the Danish

respondents. With all our prejudices we could use sex and age to explain the great Swedish interest in the (humanities-like) coaching, and less interest in the field of online communication, distance learning and social media. But with the Danish results, the prejudices won´t do. The Danish respondents are younger and more males. The Danish are even teaching in the field of IT and communication, and still they are pointing out coaching and takes less interest in online communication and social media - Here we saw a challenge and a task to work with.

The tendencies in the answers from both the Danish and the Swedish respondents, show us an opposition among the teachers to the online communication and the social media. At the meeting in Italy, the countries presented their results and figures from the questionnaire, and all six countries saw and agreed on the need for working with the online communication and the social media. All six countries have different ways and attitudes to the everyday pedagogical practice, and still all six questionnaire indicated a kind of cross-nationality opposition to the new medias. We all have a struggle with – our personally, as well - attitudes and scepticism towards changing methods and practice.

To do is to develop and to learn

We all have learned that the social media is more than just another technology.

The social media is a question about changing behaviour and way of doing. One of the important headlines in the Finnish presentation about social media at the meeting in Italy, emphasized that to learn and develop the social media is to use it. *There is no "teach," there is only do*, it says in the presentation (see photo) In other words you have to learn and develop your own use of the media, and the only way to learn it, is to use it. In the DETVET group our difficulties in using and communicate via our blog, demonstrate clearly for us the need of doing!!! The challenge to learn by doing, is to cross the barriers to the doing. The question is: Do we know the barriers and how do we cross them?

Quantitative and qualitative researches

The questionnaire has pointed out the task, and it is to define and cross the barriers to the use of the social media. But we still don´t know how to do it. The questionnaire, as we have formed it, can´t give us any ideas to handle this task. Our questionnaire tells us how many of the questioned teachers knows or wants to know a certain method or technique. But our questionnaire is

quantitative oriented, and can´t tell us how to approach a new technique and how to start a new practice.

In a way our DETVET project is qualitative oriented. The spirit of the DETVET project is to inspire cross the boarders, and our meetings are not a question about e.g. number of participants, but more like a question about how we exchange experience and ideas. To support this exchange of experience and ideas we could have choosen a qualitative research (like e.g. focus group interviews), instead of our quantitative questionnaire. However, we didn´t take the discussion and the consideration about quantitative versus qualitative in advance, and at that time we probably haven´t been able to point out or agreed on the main themes and main questions for an qualitative research. In a way it is what our questionnaire has given us: A theme and a task. Next step is to work with the qualitative content and make use of our common experience and ideas to cross our barriers to the social media.

Conclusions

We got focus on the social media

At the Danish part of the questionnaire in the DETVET project, we in particular were surprised on the teachers low interest in the social media. A big number of the teachers know e.g. blogs, but only 10 % of the teachers use it regularly, and another 10 % don´t know anything about blogs. Only a fifth of the Danish teachers are using Facebook in their lessons, no one use Twitter, and less than 10 % of the Danish teachers wanted to improve their knowledge about and use of the Social Media.

When we compared the Danish answers with the Swedish results, we noticed some identically tendencies. Exactly like the Danish respondents, the Swedish teachers had a low interest in the social media. The Danish respondents are younger and more males than the Swedish teachers in the questionnaire, and with all our prejudices about young men and digital media, we were even more astonished about the Danish answers. The Danish teachers in the questionnaire are even teaching in the field of IT and communication, and still they take less interest in online communication and social media.

The questionnaire gave us a challenge and a task to work with, and at the meeting in Italy all six countries agreed on the need for working with the online communication and the social media. All six questionnaires indicated a kind of cross-nationality opposition to the new medias. In all six countries we saw a scepticism in changing methods and practice among the teachers.

At the meeting in Italy the Finnish presentation learned us that the social media isn´t just another technology, but a question about changing online habits and way of doing. One of the important headlines in the Finnish presentation emphasized that to learn and develop the social media is to use it. *There is no “teach,” there is only do*, it says in the Finnish presentation

When we got the answers from our questionnaire in Denmark, the teachers themselves were astonished about the low interest in the social media. Most of them saw themselves as common Facebook users, and among the colleagues, the teachers often are exchanging ideas, how to put on photos and links on Facebook. The teachers didn´t see any needs for courses or introductions in using the social media. The teachers had a big experience with Facebook. They use it every day, and that’s why the questionnaire turned out with such a low interest in improving the social media, the teachers claimed. With the words from the Finnish presentation, the teachers didn´t have a lack in their knowledge or “teach,” the teachers just had “to do.”

Social Media for the students going abroad

The discussions among the teachers upon the questionnaire won´t end up in any kind of courses or technical introductions in the use of the social media. Instead the teachers jumped out into “to do,” when the students are staying and working outside the school. A group of students stayed in Oslo for three weeks, two weeks at a Norwegian college, and one week in a trainee job in a company. During the students stay in Oslo, the teacher and the fellow students back home were able to follow the Danish students experiences on Facebook. The Danish students had to report from their projects and their trainee week, and the students used Facebook as a notebook and a diary for their later reports and presentations.

Nothing new in that, the teacher said, the students and I knows to use Facebook. But with the experience during the students stay in Oslo, we saw that Facebook can be used too, when our students have their trainee periods in Denmark. With Facebook the teacher can follow the students work, and follow up on professional questions during their stay in the company.

According to the teacher, the benefits of using Facebook is multilateral. First of all the teacher has a running personal contact to the student. When the student returns to the school the teacher knows what the student has struggled with during the trainee period, and he can e.g. prepare follow up exercises on the students trainee jobs. With this specific use of Facebook the students improves their skills in communication about professional subjects, in professional words and in writing. These communication skills, often is needed and sought after by the companies, and Facebook here even support skills, that the VET-students often need to be much more skilled in.

The Danish participation in the DETVET project in this way has started a discussion and an awareness about the use of Facebook. The teachers recognized Facebook as a tool to preparation, to ongoing contact, and to pick up exercises later on, when the students are going abroad and during their trainee jobs in the companies. The teachers got a new angle on Facebook, and now saw a pedagogical use in it. Facebook wasn´t any longer only for private communication, and not any longer just something that the teachers most often asked the students to turn off. Next step in our work is the reporting and the communication via Facebook during the students trainee jobs in the companies.

We got our own medicine

The Danish contribution at the DETVET project has the headline innovation and entrepreneurship. In Denmark the education programmes in general and at all levels, have a growing focus on

innovation and entrepreneurship. In the articles and the declarations from the Danish Ministry of Education, innovation and entrepreneurship most often are emphasized and demanded as a cumpulsory part of the programmes.

At SDE we formulate innovation and entrepreneurship as two subjects in the area of getting new ideas and starting up new companies. In our way of using the two concepts, the entrepreneurship is dealing with hardcore management tools as business plans and tax accounts, while the innovation is dealing with the creative competences, such as creating ideas, individually and in teams.

A classic approach would be to concentrate on the core diciplins of Entrepreneurship Marketing, Finances, Investment, and Procurement. But our focus is somewhat different. In our way of using and working with the concepts entrepreneurship and innovation, it all starts with innovation. We see innovation as the pre-skills in existing jobs as well as in improving both new jobs and companies. With that experience and attitude to the innovation and entrepreneurship we joined in the DETVET project, and here we sort of got to taste our own medicine. In our articles and lectures at the DETVET meetings we emphasized the main competences for the entrepreneurship and in particularly the innovation as individual reflections, personal relations and the non knowledge that we don´t know that we don´t know. All in all competences, that gave us big binding expectations to ourselves, to be open minded, good listeners, and without preconceived opinions about the various contributions and conclusions in the project.

However, an international project with six nationalities and six different topics, first of all demands us to be open minded, good listeners, and then next to present our experience and ideas from back home. In that way we got to taste our own medicine, when we meet the expectations to be open minded and good listeners.

With the DETVET project it has been a great challenge and an important experience, to build up a dialogue during and between the six meetings. We learned that we all had plans and agendas, that none of us could imagine in advance. When a delegation after two days of meetings and 5 minutes before leaving, put on a serious matter, it isn´t bad timing, but a great expression of how we in different ways distinguished between a serious matter and an announcement beyond dispute.

We now know that we can´t predict all various opinions and different traditions going on in six countries. We have now moved beyond the normative wondering, to the stage of curious wondering, in which we still can be astonished, and even then unite our experiences.

chapter III

FINLAND

Vocational education and training in Finland

The post-compulsory level is divided into general education and initial and further vocational education and training. After basic education, 95.5% of school-leavers continue in additional voluntary basic education (2.5%), in upper secondary schools (54.5%) or in initial vocational education and training (38.5%).

The aim of vocational education and training (VET) is to improve the skills of the work force, to respond to skills needs in the world of work and to support lifelong learning. VET comprises initial vocational training and further and continuing training.

A total of 146 000 students attend initial vocational training every year. Of them, 4 500 attend access courses preparing for initial vocational training. The largest fields are Technology and Transport (c. 36%), Business and Administration (19%) and Health and Social Services (17%). The other fields are Tourism, Catering and Home Economics (13%), Culture (7%), Natural Resources (6%) and Leisure and Physical Education (2%).

In further training provided in the Ministry of Education and Culture sector, the annual number of students is about 40,000. There are 119 study programmes leading to 53 different vocational qualifications confirmed by the Ministry of Education and Culture. The number of further and specialist qualifications, which are taken as competence-based qualifications, is 305.

VET is intended both for young people and for adults already active in working life. They can study for vocational qualifications and further and specialist qualifications, or study in further and continuing education without aiming at a qualification.

Initial VET

- The vocational qualification has been designed to respond to labour market needs.
- The qualification is 120 credits, which takes three years of full-time study, unless prior learning can be counted towards the qualification.
- The qualification is based on working life occupations and the competencies required.
- The qualification includes at least 20 credits of on-the-job learning.
- The training is built on the basic education syllabus.
- Prior learning acquired in training, working life or other learning environments can be counted towards the qualification.
- Matriculated students can also study in initial VET. Their prior studies are equivalent to some 30 credits, which are counted towards the vocational qualification.
- A vocational qualification gives general eligibility for polytechnic and university studies.

At the Ministry of Education and Culture, matters relating to VET are administered by the Vocational Education Division.
See: *http://www.minedu.fi/OPM/Koulutus/ammatillinen_koulutus/?lang=en*

Higher professional education

The Finnish higher education system consists of two complementary sectors: universities of applied sciences (polytechnics) and universities. The mission of universities is to conduct scientific research and provide instruction and postgraduate education based on it. Universities of applied sciences train professionals in response to labour market needs and conduct R&D which supports instruction and promotes regional development in particular.

The system of UAS is still fairly new. The first polytechnics started to operate on a trial basis in 1991-1992 and the first were made permanent in 1996. By 2000 all UAS were working on a permanent basis. The universities of applied sciences are multi-field regional institutions focusing on contacts with working life and on regional development.

The total number of young and mature UAS students is 130,000. Universities of applied sciences award over 20,000 BA degrees and 200 Master's degrees (UAS) annually. The system of higher degrees was put in place after a trial period in 2005 and the number of UAS Master's programmes is expected to grow in the coming years. At the Ministry of Education, the UAS are administered by the Division for Higher Education and Science.

Studies and degrees

UAS offer:

- education for BA degrees
- education for master's (UAS) degrees
- professional specialisation and other adult education
- open UAS education
- vocational teacher training

Degree studies give a higher education qualification and practical professional skills. They comprise core and professional studies, elective studies and a final project. All degree studies include practical on-the-job learning. There are no tuition fees in degree education, and the students can apply for financial aid.

UAS education is provided in the following fields:

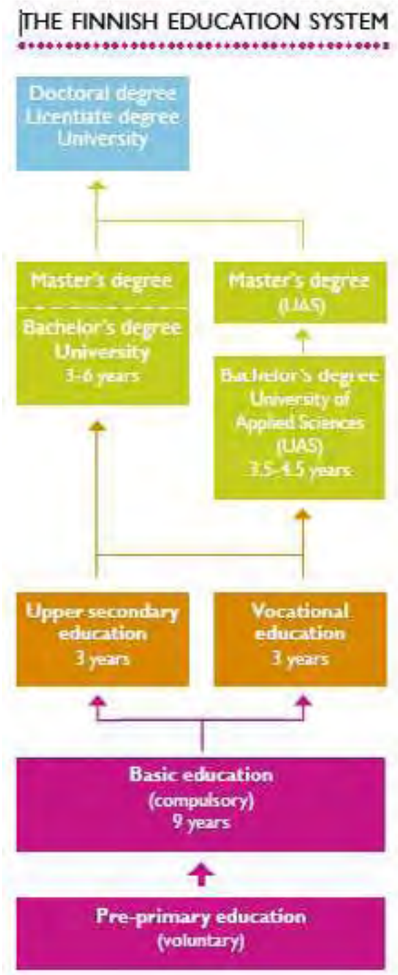
- Humanities and Education
- Culture
- Social sciences, business and administration

- Natural resources and the environment
- Technology, communication and transport
- Natural sciences
- Social services, health and sport
- Tourism, catering and domestic services

The extent of BA degree studies is generally 210-240 study points (ECTS), which means 3.5 - 4 years of full-time study. This education is arranged as degree programmes. The entry requirement is a certificate from an upper secondary school or the matriculation certificate, a vocational qualification or corresponding foreign studies.

The requirement for Master's studies in UAS is a Bachelors' level degree and at least three years of work experience. The Master's (UAS), which is 60-90 study points and takes 1.5-2 years, is equivalent to a university Master's in the labour market.

Edited from the article by Ministry of Education and Culture:
http://www.minedu.fi/OPM/Koulutus/ammattikorkeakoulutus/?lang=en



Social Media in Education

Contemporary education focuses more on learning than teaching and uses open learning environments rather than classrooms. Traditional teacher and teaching centred education is giving way to learning centred education where student collaboration and research with peers plays an important role and student's work is independent of time and space. The role of the teacher is gradually moving to the role of a coach or facilitator.

Information and Communication Technology (ICT) has served as an important resource to support this development in education since the 90s. The birth and fast expansion of the Internet has enabled remote participation in courses. The applications have however been quite difficult to use, and the required essentials, computer, software and internet connections expensive.

With the emerge of WEB 2.0 technologies and affordable high online bandwidth in the 21st century the possibilities of using the Web as an productive open learning environment have drastically improved. There are now lots of free of charge easy-to-use online tools which support collaborative knowledge building and learning. No software needs to be purchased or installed, everything works within a web browser.

Guidelines for using Social Media

Social Media is often conceptualized through tools. Social Media has become synonymous with Facebook, Twitter, YouTube etc. In education more important than tools are knowledge building, authentic learning and learning goals. This document lists four guidelines for teachers in using Social Media.

1. Be present

When Social Media tools are used in and for education they are distance learning tools. They lack the face-to-face communication of class room teaching. The exchange of nuance from face to face to Internet communication must be taken into account. The potential for misunderstanding is tremendous. The lack of teaching is immediately apparent in empty social media sites. If a Facebook group is set up and left to its own devices without guidance and learning goals, the outcome will be poor.

2. Be clear

Make clear for the students what they should be doing. The next task should be clear for the student at all points. If you want knowledge building to happen, make it clear for the students. Do not expect it to happen by itself. If you are aiming at particular learning outcomes make them clear, do not expect students to know them.

3. Be diverse

Social Media is not limited to Facebook. Choose your tool by purpose. For example, status and feed based tools are great for team building. Video is for learning sequences by example. Find out which tools the students are using. It pays to know which tool the students are using already especially if they are heavy users. The lack of learning threshold for will save time and effort.

4. Be open

Open exchange of information is the reason and basis for all the advances that have come out of Social Media. Open exchange of information is native to Social Media. For a Social Media application to survive there needs to be at least the potential for everyone to take part. In the spirit of open exchange of information be ready to accept suggestions for tools from students. For a successful teaching experience, adapt resources from the web, do not try to do/know everything yourself. Note, that the open exchange of information in this case does not mean indiscriminate distribution of information. Personal information, social security numbers and grades should not appear on Social Media sites.

Social Media does not teach people to be social. The people who are drawn to Social Media are already social. Those people have an affinity for social skills and are either naturally talented or have learned to be social in other arenas. Natural ability to function socially plays a part. In the near future students will have grown in a world where Social Media cannot be separated from other social phenomena. Having an open mind toward different attitudes will help your teaching experience.

Example of a Social Media learning tool, the Wiki

There are many services on the market – like Moodle and Blackboard – providing an open online learning environment. These platforms are quite widely used – sometimes very successfully for learning and student centred education, sometimes only to move the traditional teacher centred education online, maybe most often as storage for materials provided by the teacher and a folder for students to upload their individual assignments.

Social Media offers many new platforms for collaborative learning like wikis and blogs. They are easy to use and maintain, the teacher can focus on supporting the students instead of focusing on

the maintenance of the platform.

The most popular and well-known wiki is the Wikipedia. A wiki is used and edited using a common web browser. A wiki is used to collaboratively create, edit and maintain documents. It is a very good tool for shared knowledge building and learning.

Wiki in learning:

The traditional method for a group of students who are supposed to write a learning diary, a report or an article is to write it solo and send to teacher. End of story.

The problems are:

- The teacher is the only person reading the output of the student
- The student will not process further the ideas after finalising the assignment (unless the teacher gives feedback and starts a dialogue with the student. You seldom have time for this)

The gains are:

- It is easy for the teacher to assess and grade

For a group of students writing a learning diary, a report or an article, it is a good idea to use a wiki document. The students see what the other students write about the subjects and discussion, and debate will occur.

The problems are:

- The teacher will have to monitor the discussion and work a little bit more to grade assignments

The gains are:

- The student will not only fill the formal requirement of the assignment, but (s)he will be involved in an intellectual discussion, which always is a learning process
- The student will enjoy many observations made by other students and learn much more
- The teacher will have to review only one document and learn much more

Wiki in collaborative creation of documents

According to the creator of the first wiki software, Ward Cunningham, a wiki is “the simplest online database that could possibly work.”

The old way of managing creation of a collaborative document is that the coordinator sends a draft

to the team as an email attachment.

The worst case scenario: Greta and Giovanni send their own versions with some changes and additions to everybody as attachments while Pelle and Dalia send some proposals in email messages. Pekka and Vaclav give their input too. Pekka makes his alternative to the original text while Vaclav formulates in another way the same paragraph, but adding to the proposal Dalia made. Finally no one knows who has proposed what and there is no final version, just confusion.

Students under 30-40, the internet natives, refuse to work like this.

If collaborative documents are prepared on a wiki, there is only one version, which is always up to date and includes all corrections. Many wiki programs store the history of the pages which is also a very useful feature.

Participants can make several concurrant texts, and the team can decide after an intellectual discussion or debate which iteration to keep. Contributors can be identified by colour or initials.

The coordinator edits the final version and everything is ready for moving forward.

DETVET project and Social Media tools

The Tampere partners proposed to practise and test Social Media services managing and running the project itself. The idea was to use tools also relevant for vocational education and training for communication and dissemination. The other partners welcomed the idea.

The project website was not established in the old manner where only one web master has access to the site and the skills to manage it, leaving all other participants dependent on the master.

All partners had access to the project blog *http://detvet.blogspot.com* which offered all the functions of a regular website spiced with interactivity. All readers have the authority to comment on the posts or the news section. On the site there are pages titled The Partners, Meetings, Library and DETVET in Media, all pages frequently updated with new information and documents.

DETVET Google group was used as the discussion forum and email list of the project. Almost all communication between the project meeting happened through the group.

Google Docs DETVET collection had two functions, it was used for document storing and sharing and and as the project wiki.

All relevant project documents were stored in the folders of Google Docs DETVET collection. All content is shared with everybody on the Internet, illustrating the open nature of the project. Most documents are linked to the relevant page of the DETVET blog.

Collecting practical info preparing the meetings specific documents were used as wiki pages. For the partner preparing each meeting it was very helpful not having to collect the information from numerous emails, all details about arrival and departure times, hotels, special diets etc could be found in one single, collaboratively created document.

Photos from the meetings were shared using Picasaweb and Facebook, slideshows were shared with the help of Slideshare and Prezi. Videos were made accessible trough YouTube, TED and the TAMK video sharing utility Moniviestin - TAMK.

Results

The questionnaire was handed out to VET teacher students in Tampere University of Applied Sciences during 2010. 22 VET teacher students filled out the questionnaire. The respondents were between the ages of 31 and 55 (64% were 31 - 45). 68% of the respondents were currently in the position of VET teaching. 54% of the respondents had been teaching 2-5 yrs. 73% had had training in at least some areas of VET systems.

Andragogue methods & coaching

Andragogue methods and coaching were widely in use. More than half of respondents were using some kind of coaching method. 71% were having individual discussions with students in order to follow up on their results and progress.

Entrepreneurship and innovation

Answers for Entrepreneurship and innovation techniques were spread across the board. For some it was a familiar field and for some totally new. Respondents wanted especially to learn more about ePortfolio. Already widely in use were external contacts for coaching.

Distance education and self-study

Self-study texts were widely in use: 74%. E-mail use: 85%. On-line tools and individual face to face communication were preferred. Off-line and large group-communication were not popular methods. In general, distance education and self-study were very popular.

Social Media and Web 2.0

Social media tools were not widely in use. Highest scores were in the “I know but don’t use” or “I don’t know” sections. In use mostly were Google tools (41%), YouTube (27%) and Wikis (27%). Wanting to know more scored low. Most wanting to know were Google tools (9%).

ICT tools

Most in use were e-mail (82%) and presentation tools (73%). Most interest for learning sparked ePortfolio (20%). Lowest use was for smartboards with only one user.

Which of education techniques would you like to improve

Highest interest towards learning about was the use of IT tools for learning and networking (41%) and the use of Social media and Web 2.0 tools (32%). Noteworthy, the same respondents did not indicate their interest for individual IT and social media tools earlier in the questionnaire.

How to proceed

The highest interest for learning more was directed towards teaching innovation classes (32%) and ePortfolio (as innovation tool 36%). Contradictory answers were given about SoMe and Web 2.0 tools where individual tools did not interest respondents but in the general future improval section they were highly interesting for the respondents.

Scoring highest in the “I don’t use” and “I don’t know” categories were almost all SoMe tools and some ICT tools. For the future, more resources, implementation and training of SoMe and ICT is appropriate according to this questionnaire.

Conclusions

How did we do

Our questionnaire was made among students of the School of Vocational Teacher Education associated to TAMK. More than 2/3 of the respondents were vocational teachers. The respondents were from all over Finland.

What did we see

We learned that andragogue methods and coaching, self study and e-mail are quite widely applied in VET in Finland.

One part of the respondents were not familiar with entrepreneurship and innovation as methods in education, while the other part had already some experience or at least interest in learning more and starting to implement.

For TAMK the DETVET project came in the perfect time. Development of the methods dealt with in the project have been topical across the campus, and many new ideas learned from DETVET partners have been implemented and tested during the last year and a half. Most of the actions would certainly have been realized without DETVET, but the project has without doubt given inspiration and self confidence to teachers working for new ideas in education.

During the last year and a half all departments of TAMK have planned how to recognise previously achieved learning, coaching has been implemented not only in our special unit of entrepreneurship the Proacademy and in the newly established joint platform for innovation, Demola. Almost all degree programmes have started blogs, and the university wiki has started to operate.

In practice all educational staff participated in TAMK Learning Environment conference in February this year, where also all aspects of DETVET were dealt with and the project itself was introduced.

The conference discussions show that there is a strong will among teachers to implement new methods, but there is a shortage of knowhow and time to learn. New software applications to fulfil the growing amount of administrative duties loaded on teachers are frequently introduced, and teachers don’t want to and have time to learn a lot of additional new computer programmes. This seems to be one of the main problems.

What to do now

The main conclusion is that teachers are aware of the ongoing necessary paradigm shift in

education. Lifelong learning is a necessity, and this is not possible if education is teacher and classroom centred. Teachers are willing to learn to implement student and learning centred education in open learning environments which is vital for life long learning, but feel short of resources to make the move. The daily work of the VET teacher features more and more meetings and administrative tasks, and time for learning and adapting new educational methods is scarce.

Tackling this complex of problems is not a simple task, but it would be useful if

- The decision makers of the institutions giving vocational education would be aware of the need of the paradigm shift in education.
- If decision makers and teachers would realize that mobilisation of new technologies and software is not the solution, but a change in attitudes is. Once the necessity of the paradigm shift is become conscious of, the teachers will find the tools that are waiting for them
- The teachers would move their focus from teaching to learning
- The teacher would not be paid for standing in front of a class room and it would be made clear for the teachers that is not what they are paid for.

chapter IV

Vocational Education and Training in Italy

Italy, in terms of both compulsory and higher education, has recently undergone a period of transition through which the basic structure of the state system has been overhauled. These changes were made not only to bring Italian education in line with the rest of the education in the European Union, but also to create a more flexible system which better and more broadly educates those choosing to study in Italy.

This transition has not ended yet but until now the most important principles are:

- The principle of subsidiarity, a wide administrative decentralization to strengthen the school autonomy;
- A cohesion with the rest of the European Union, improvement of the general educational level through a higher attendance percentage to training activities in a life-long-learning prospective.

Italy has adopted a set of measures with a view to ensuring a higher quality of the education system. From here a wide diversification of education and training paths on offer, some being mainly academically-oriented, others mainly vocationally-oriented and therefore strengthening school autonomy; focusing on the development of personalised study paths, allowing students to choose more freely according to their aptitudes, talents, interests and aspirations; the modernization of curricula, an integration between different systems (instruction, training education, work, social life), a definition of competence certification system valid at national level, the transparency of all certifications and the recognition of credits.

At national level, improving the quality of education and training and ensuring a high level of social cohesion are the key objectives of the Italian education and employment policies, which are thoroughly expressed in the Education Reform Act (n. 53/2003) and the Labour Market Reform Act (n. 30/2003).

The legislator (Law 30/2000) has provided that the ‘new’ school articulates in two cycles:

- Primary (or basic) cycle: 8 compulsory years of schooling beginning at age 6.
- Secondary cycle: 5 years (the first and the second year are compulsory). This cycle provides for four areas of specialization: classical, scientific, technical and artistic studies. On completion of the 5-year course, students take the examination for the Diploma di Maturità in the specialised area they have chosen. This diploma grants admission to an Italian university.

Primary cycle: "Elementary" and "Secondary" Education

"Elementary" school , "scuola elementare" or primary school lasts for 5 years and begins at the age of 6. The study program is composed of the following subjects: Italian language and at least one foreign language (EU language), maths, science, history, geography, social studies, visual arts, sounds and music, sports, IT and religion (optional).
"Secondary" school, "scuola media" or lower secondary school, is of a three year period at the end of which students, assuming all goes well, receive a "Diploma di Licenza di Scuola Media" and therefore the right to continue their education.

The study program is composed of the following subjects: Italian language and literature, history, geography, civics, two foreign languages (of EU), maths, chemistry, physics, arts and crafts, art education, musical education, gym, information technology and religion (optional).

With the implementation of the new system the age of compulsory education has shifted upward to 16 years of age. So, the traditional "liceo" and "istituto" that follow the primary cycle, have been replaced by an obligatory two-year period of general studies, followed by three more years of optional specialised education. New disciplines and a 34-hour week of classes are designed to better prepare students for their future careers.

Secondary cycle: Liceo or vocational education School

Students may choose from a range of High Schools, known as "licei", or move to study at an "istituto" which prepares students for elementary school teaching as well as technical, commercial and industrial careers. On completion of their chosen course students undertake a State assessed exam which gives them a "diploma di maturità" and hence the right to attend university.

The LICEO schools can have the following specializations:
Classical, Linguistic, Artistic , musical, human sciences, with mostly human subjects and scientific , economic and technologic specializations with mostly scientific subjects.
All of them have a two year period followed by the last year that is usually deeply oriented to the following studies.

The vocational education Schools

1. Istituti tecnici. Their duration is subdivided into a basic two-year cycle and a three-year cycle with more branches of study and specializations. The structure is subdivided into two sectors: economic and technologic;
1. Istituti professionali. Their duration is subdivided into a three-year cycle, leading to a "Diploma di Qualifica" and, according to Law of 27 October 1969, n. 754, a post-qualification two-year cycle (4th and 5th years) that grants admission to university. The

structure is subdivided into two sectors: services sector and industrial and artisan/ craft;

2. Istituti d'arte. They foresee courses lasting for three years and structured in sections depending on the art specialisation's: ornamental painting, ornamental sculpture, graphics, wood, ceramic and metal applied arts, etc. Applied art courses include practice in laboratory. Law 27 October 1969, n. 754 has instituted in Istituti d'arte further courses lasting two years, granting admission to University. Courses lasting three years end with the "diploma di qualifica".

In both technical and professional institutes, there are more practical lab classes, stages, training and school/work alternance to give students the chance to move from general education to vocational training and help them enter the labour market. (Once you finish both the liceo or institute, you can attend University, higher technical education & training, higher artistic or musical education, or start to work).

Law no. 53 of 28 March 2003 allows 15 to 18 year-old students to attend 2nd level courses through alternation of study and work periods, under the responsibility of schools or training institutions, on the basis of agreements with enterprises or associations of industries, public or private bodies, or to attend integrated courses organised at vocational education and training institutes offering study programmes planned by the two systems together.

The new laws provide learners with the possibility to move from general education to vocational training and vice versa. This system thus allows students to change their minds and make their cultural and educational choices according to their personal interests and aptitudes.
Work-study programmes, or school/work alternance have also been established to exploit the education and training potential of the business sector and to give learners the opportunity to experience the labour market.

Programmes of Higher Technical Education & Training
(Istruzione e Formazione Tecnica Superiore)
Courses of higher technical education & training (IFTS) were established by Law No. 144 of May 1999. They are meant for young students and adults holding a school leaving qualification who, employed or unemployed, wish to specialise for a quick transition to or a re-qualification in the labour market. IFTS programmes last minimum 2 to maximum 4 semesters (from 1,200 to 2,400 hours), and lead to professional profiles with a high employment rate; they are jointly designed and run by universities, centres for postsecondary vocational education and training, upper secondary schools and businesses, often gathered in consortia. Set up taking into account both national standards and the local needs of individual Regions, IFTS courses include practical

training “on job” for at least 30% of each curriculum. On course completion, a certificate is awarded, valid in the whole national territory; the student’s workload is expressed in credits so as to make the qualification valuable for further studies, even if later in life.

Apprenticeship

An important innovation is the enhancement of apprenticeship, which allow younger people to fulfil their right and obligation to education and training, while providing them with work experience. These projects have helped to significantly reduce the number of young people leaving education and training before the age of 18. The implementation of these initiatives has also been supported by a more effective use of Structural Funds, and in particular the ESF, within the framework of the 2000-2006 National Operational Programme “School for Development”.

ICT in Adult Education and Networking

Team Comune di Sant'Angelo in Vado and TRAINING 2000
Italy, 5 March 2011

ICT, Information and communication technology, consists of all technical means used to handle information and aid communication, including computer and network hardware, communication middleware as well as necessary software. In other words, ICT consists of IT as well as telephony, broadcast media, all types of audio and video processing and transmission and network based control and monitoring functions. Educational technology is the study and ethical practice of facilitating learning and improving performance by creating, using and managing appropriate technological processes and resources. Educational Technology includes, but is not limited to, software, hardware, as well as Internet applications and activities. Those who employ educational technologies to explore ideas and communicate meaning are learners or teachers.

Digitized communication and networking in education started in the mid 80s and became popular by the mid-90's, in particular through the World-Wide Web (WWW), eMail and Forums. There is a difference between two major forms of online learning. The earlier type, based on either Computer Based Training (CBT) or Computer-based learning (CBL), focused on the interaction between the student and computer drills plus tutorials on one hand or micro-worlds and simulations on the other. Both can be delivered today over the WWW. Today, the prevailing paradigm in the regular school system is Computer-mediated communication (CMC), where the primary form of interaction is between students and instructors, mediated by the computer. CBT/CBL usually means individualized (self-study) learning, while CMC involves teacher/tutor facilitation and requires scenarization of flexible learning activities. In addition, modern ICT provides education with tools for sustaining learning communities and associated knowledge management tasks. It also provides tools for student and curriculum management.
http://en.wikipedia.org/wiki/Information_and_communications_technology

When and why

Information and Communication Technologies are being increasingly used to create richer learning environments. In all sectors of education from primary schools to adult education, in schools for pupils with special education needs and in colleges and universities, technologies are being used across the curriculum to enhance students' experiences.
There are various types of technologies currently used in traditional classrooms. Among these:

- Computer in the classroom: Having a computer in the classroom is an asset to any teacher. With a computer in the classroom, teachers are able to demonstrate a new lesson,

present new material, illustrate how to use new programs, and show new websites.

- Class website: An easy way to display your student's work is to create a web page designed for your class. Once a web page is designed, teachers can post homework assignments, student work, famous quotes, trivia games, and so much more. In today's society, children know how to use the computer and navigate their way through a website, so why not give them one where they can be a published author. Just be careful as most districts maintain strong policies to manage official websites for a school or classroom. Also, most schools provide teacher webpages that can easily be viewed through the school website.
- Class blogs and wikis: There are a variety of Web 2.0 tools that are currently being implemented in the classroom. Blogs allow for students to maintain a running dialogue, such as a journal, thoughts, ideas, and assignments that also provide for student comment and reflection. Wikis are more group focused to allow multiple members of the group to edit a single document and create a truly collaborative and carefully edited finished product.
- Mobile devices: Mobile devices such as smartphones can be used to enhance the experience in the classroom by providing the possibility for teachers/trainers to get feedback.
- SmartBoards: An interactive whiteboard that provides touch control of computer applications. These enhance the experience in the classroom by showing anything that can be on a computer screen. This not only aids in visual learning, but it is interactive so the students can draw, write, or manipulate images on the SmartBoard.
- Online media: Streamed video websites can be utilized to enhance a classroom lesson (e.g. United Streaming, Teacher Tube, etc.)

There are many other tools which can be used based on the school and funds available. These may include: digital cameras, video cameras, interactive whiteboard tools, document cameras, or LCD projectors.

- Podcasts: Podcasting is a relatively new invention that allows anybody to publish files to the Internet where individuals can subscribe and receive new files from people by a subscription. The primary benefit of podcasting for educators is quite simple. It enables teachers to reach students through a medium that is both "cool" and a part of their daily lives. For a technology that only requires a computer, microphone and internet connection, podcasting has the capacity of advancing a student's education beyond the classroom. When students listen to the podcasts of other students as well as their own, they can quickly demonstrate their capacities to identify and define "quality." This can be a great tool for learning and developing literacy inside and outside the classroom. Podcasting can help sharpen students' vocabulary, writing,

editing, public speaking, and presentation skills. Students will also learn skills that will be valuable in the working world, such as communication, time managment and problem-solving.

- E-learning platform: e - learning platforms are online environments where trainers/ teachers can create different learning paths for their students using different online tools. Communication tools are also a common feature of online learning platforms. Tools can range from integrated, standard Internet email, to sophisticated internal messaging systems that allow students and classroom facilitators to exchange private messages; chat applications and/or forums. Many learning platforms offer student progress tracking and tools like class calendars and virtual notepads.

The creation of high quality content is essential if the potential of 'e-learning' is to be realised in a way that stimulates and fosters Life Long Learning. The planning of training using ICT, demands more attention than regular traditional training . Due to the various types of technologies the trainer's needed competencies change from essentially being based around arranging subjects to arranging the learning process for individuals or groups that have to work on the subject using IT tools. Web 2.0 tools are tools that help make it very easy for people to create their own content in different forms – text, pictures, audio and video and to participate in training using the above described technologies.

When talking about Web 2.0 tools we refer to interactive on-line applications, ie blog, forum, chat, systems as Wikipedia, Youtube, Facebook, Myspace, Twitter, Gmail, Wordpress, Tripadvisor etc. which make it simple not just for teachers but for students to produce and publish materials themselves and increasingly use them in the classroom mixing traditional teaching methods with some e-learning methods in what is called Blended Learning.

Adult education and community outreach

The obstacles that prevent adults from participating more actively in higher education vary probably considerably from country to country and even within a single country. Starting from practical questions like lack of money or suitable courses, and ending with attitude-related issues like considering oneself too old for studying or finding no need for studying, or considering oneself not suitable for higher education because of social class, parents background, etc.

Neither ICT nor Community Outreach strategies in isolation can help to overcome the negative attitudes, which prevent adult learners from wishing to participate in higher education. Although ICT-based teaching is time-consuming and expensive from an investment point of view from a lifelong learning perspective ICT are among the most effective and efficient ways of reaching adults and widening their participation in higher education.
From various research we find out that delivering courses through the net brings benefits for

adults, providing better access to learning and qualitatively better learning results.

Instead of offering 100% web-based learning, blended learning which offers the opportunity for face to face study and teaching sessions is preferred by many adult learners who are prepared to invest time in travelling to courses and linking up with their fellow students. Therefore combining community activities with ICT-based teaching seems to be a good option for adult learners.

Benefits with ICT

ICT can be one way to improve pathways to learning. It can do this by tailoring learning to the needs and preferred learning styles of the LEARNERS, and it can make learning more interesting by providing immediate feedback.

The following are the major benefits of using ICT and networking for adult education:

• A better quality of education

ICT can enhance the quality of education in several ways: by increasing learner motivation and engagement, by facilitating the acquisition of basic skills, and by enhancing teacher training.

ICT has also been used to improve access to learning and the quality of teacher training.
ICT can be a way to improve pathways to learning. It can do this by adapting learning to the needs and preferred learning styles of the LEARNERS, and it can make learning more interesting by providing immediate feedback.

ICT has the potential for increasing access to and improving the relevance and quality of education. It is a potentially powerful tool for extending educational opportunities, both formal and non-formal, to previously underserved constituencies, for example the elderly, as well as all others who for reasons of cost or because of time constraints are unable to enroll in courses.

• Anytime, anywhere.

One defining feature of ICT is its ability to transcend time and space.
ICT makes possible asynchronous learning, or learning characterized by a time lag between the delivery of instruction and its reception by learners. Online course materials, for example, may be accessed 24 hours a day, 7 days a week. ICT-based educational delivery (e.g., educational programming broadcast over radio or television) also dispenses with the need for all learners and the instructor to be in one physical location.

• Access to remote learning resources.

Teachers and learners no longer have to rely solely on printed books and other materials in physical media housed in libraries (and available in limited quantities) for their educational needs. With the Internet and the World Wide Web, learning materials in almost every subject and in a variety of media can now be accessed from anywhere at anytime of the day and by an unlimited number of people.

Links

Links to example of good practices with blended learning are experienced in Italy for English learning – office staff and Unemployed people:

- www.eicu.eu (e-learning platform)
- www.ep4os.eu ; (e-learning platform)

Password is available on request.

Results

General Information

The Italian questionnaire was inserted online and the link was sent to teachers of public and private training organizations. 30 Vet teachers (16 male and 14 female teachers) filled out the questionnaire on andragogic techniques, coaching, entrepreneurship and innovation, distance learning and self- study, social media and web 2.0 tools, and ICT tools for learning and networking.

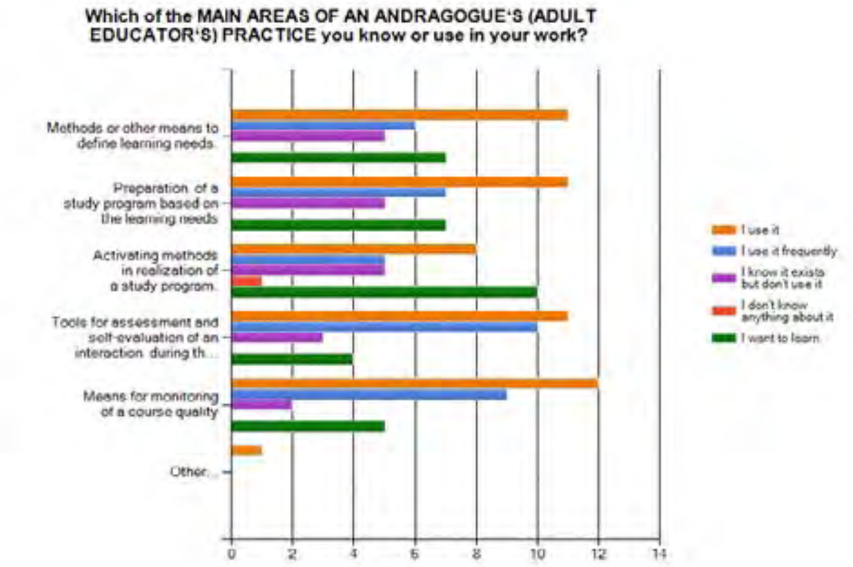
The profiles of the Italian respondents

The teachers who have sent replies to the questionnaire operate in the following domains: Graphics, Multimedia, safety at work, textile and fashion sectors, computer animation, fashion design and communication. Almost all of them have been working as VET trainers for at least 8 years and half of the total have been specially trained to work in VET systems (17 teachers). Two thirds are between 31 and 45 years old, the rest is under 30 or between 46 and 55.

The most remarkable results and figures from the Italian part of the questionnaire below:

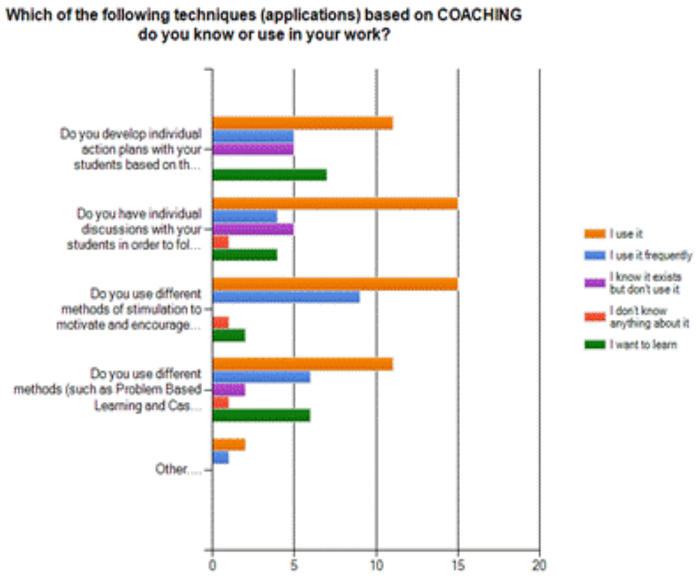
Main areas of an andragogue's (Adult education practitioner) practice

Almost half of the respondents use more or less frequently different methods to define learning needs; furthermore they also use assessment and self-evaluation tools for an interaction during the study process. Only one respondent is not aware of how to put into practice activating methods for the realization of a study program and 10 out of 30 want to learn more about it.



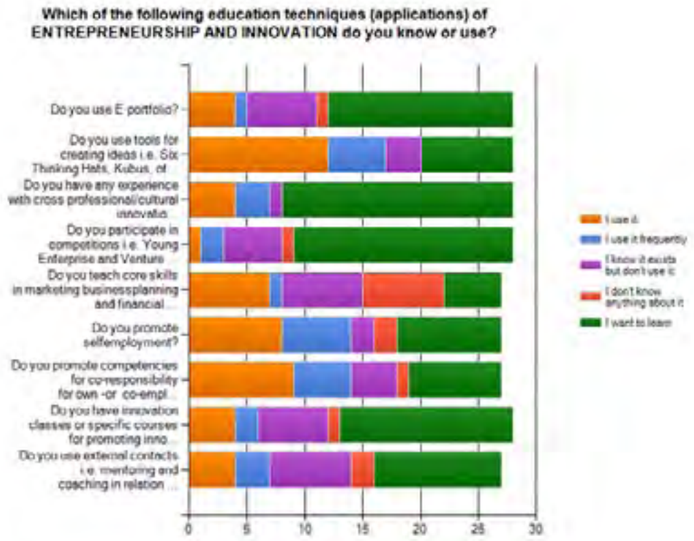
Coaching techniques

More than 50% of the respondents use different methods of stimulation to motivate and encourage the potential of the students and encourage individual discussions to point out results and progress. 7 of 28 respondents would like to learn more about the development of individual action plans agreed with their students.



Entrepreneurship and innovation

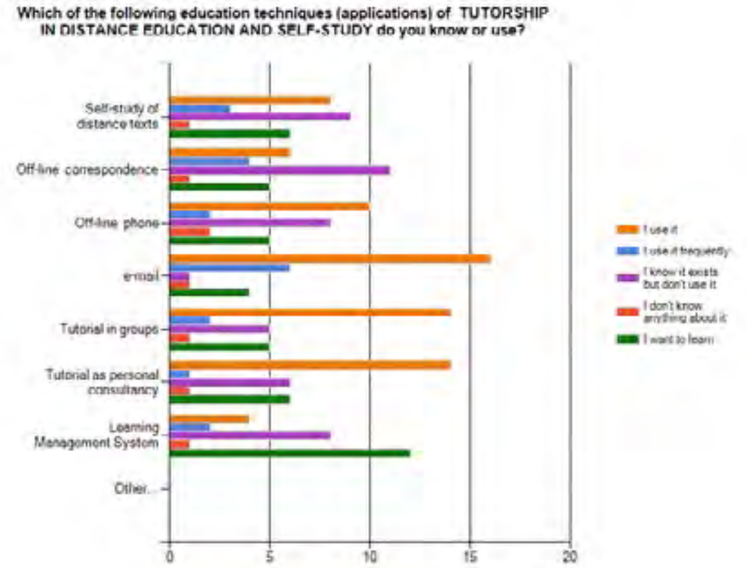
Very few respondents use E-portfolios (5 in total) but many want to know more about them (16). This value corresponds to 57,1% meaning that this is an interesting education technique together with cross professional/cultural innovation 71.4% and organisation of competitions 67,9%, for teachers and for the activation of enterpreneurship and innovation in education.
Moreover 15 out of 28 respondents would like to learn more on how to activate innovation classes or how to promote specific courses on innovation.



Tutorship in distance education and self-study

The less used technique among the ones listed is the learning management system (6 teachers) but mainly because most of them probably do not know how to use it as 12 teachers (44,4%) want to learn more about it..

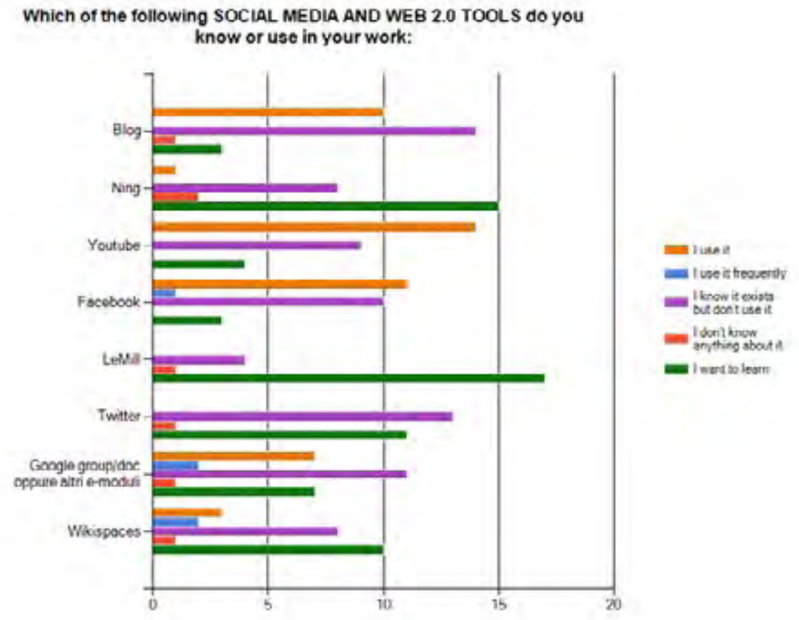
The most used tutorship in distance education and self study is on-line e-mail and tutorial in groups, where almost two thirds are using it and one third wants to learn about it.



Social Media and Web 2.0 tools

You tube is the most known and used web 2.0 tool, followed by facebook and blogger, although all three are not used very frequently.

No respondent uses LeMill and Twitter and 2/3 want to learn more about LeMill.



ICT tools for learning and networking

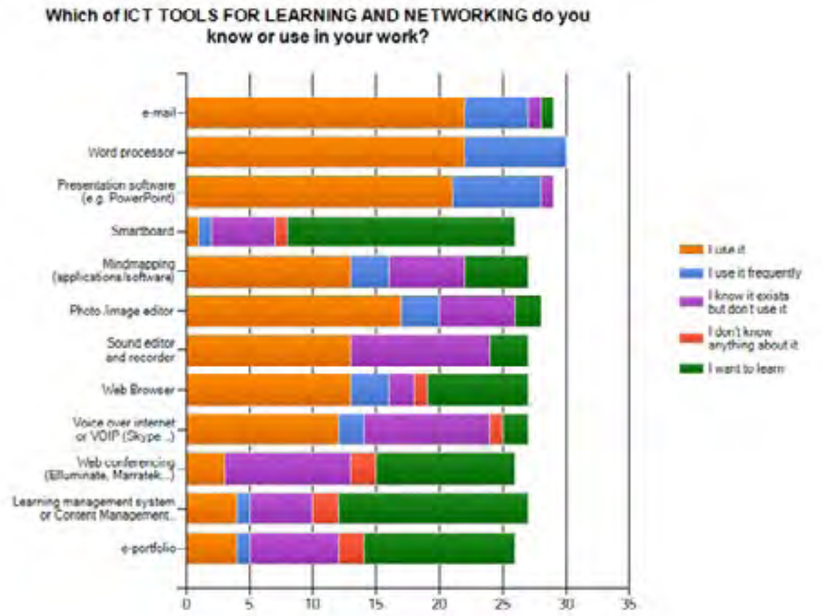
The most known and used ICT tool for learning and networking is e-mail (27 teachers), word processor (30 teachers) and presentation software (28 teachers). Mindmapping and web browsers are also used and interesting for teachers.

The less used is smartboard (only 2 teachers) but at the same time many respondents (18) would like to learn more about it.

Learning management system or Content Management system is not used a lot (only 5 teachers) but many want to learn more about them (15 teachers).

(see model on next page)

The education approach / technique that the respondents would like to improve most is the use of IT tools for learning and networking, 24,1% followed by 20,7% of respondents which would like to improve the consideration for the main areas of an andragogue's (adult educator's) practice.



Conclusions

How did we do

The results and conclusions from the Italian teachers were collected through an initial survey about the project on different experiences and use of technologies in education. After collecting the responses Training 2000 had informal meetings with the teachers who replied to further develop the concepts stated in the questionnaire and explore the needs of the teachers related to technology and education and new methodologies.

What did we see

All the interviewed teachers declared to currently use a PC, the Internet and the web based communication tools. Everybody, by this time, have a personal computer and can use basic tools (word processors, powerpoints, e-mails etc). It must also be said that the general situation of teachers is a little bit different in respect to the average of the people interviewed. There are still some teachers who do not use new means of communication, but they are seen as a minority.

About the use of e-learning tools in order to support learning activities, this activity is not so spread. Where not completely absent, these kind of experiences are very rare. Some schools have at their disposal some LIM (Multimedial Interactive Boards) which are rarely used because in some cases the teachers are not able to use them, in other cases these tools are only in laboratories but not in classrooms.

Alot of teachers use e-mails in order to communicate with their pupils. In these cases e-mails are mainly used to transfer information, send and receive homework and learning material. In other cases there was an effort of implementing a real e-learning platform. Other activities consist in trying to involve classes in the management of blogs where pupils can publish all materials related to a certain subject. In general, all these activities are started through personal initiative of the school-manager or of a single teacher. In most cases these kind of projects, after a first interest by pupils, end up being left aside.

The main need is not the presence of better technological tools, but of training of teachers in order to use virtual environments. Today all schools have at their disposal laboratories with PCs and all pupils own a personal computer. Technical tools in schools seem to be more than sufficient for the scope.

Main conclusions

The main conclusions on the five topics of DETVET from the Italian trainers/teachers which have answered the questionnaire and have been interviewed are the following:

Which of the MAIN AREAS OF AN ANDRAGOGUE'S (ADULT EDUCATOR'S) PRACTICE do you know or use in your work?

- Discussing during the lesson about why some projects have been chosen and about how and what should be improved.
- Exchanging experience on the subject.
- Initial expectations of participants are collected and some activities on the subject are suggested by the trainer.
- Role plays and demonstrations of very simple concepts.
- Cooperative learning, learning through simulation, socio drama film vision, brain storming.
- Simulations of group hierarchy self-organization and final assessment.

Which of the following techniques (applications) based on COACHING do you know or use in your work?

- Group work appointing a leader (team building).
- Initial individual reflection, opinion exchange in groups and then final theoretical concepts.
- Case studies to be solved according to one's own knowledge.
- Creative presentation of the work carried out.
- Use of expressive-sensorial instruments allowing the identification, reflection and elaboration of independent mental processes needed to participants attending the courses.

Which of the following education techniques (applications) of ENTREPRENEURSHIP AND INNOVATION do you know or use?

- On line services easy to read so that learning becomes faster and easier. Images are important for an immediate perception and understanding.
- Research and supporting of operational figures on the sector and transmitting own experiences.
- Business plan, case study to be developed.

Which of the following education techniques (applications) of TUTORSHIP IN DISTANCE EDUCATION AND SELF-STUDY do you know or use?

- Continuous exchange of ideas through e-mails and assessment of project development.

Which of the following SOCIAL MEDIA AND WEB 2.0 TOOLS do you know or use in your work?

- On-line public readings, forums, comments on important facts, current events.
- Creation of a google web site, publishing material and exchanging opinions;
- Netsurfing during the lesson searching for useful material for self-learning.

One element which emerged, both from students and from teachers, is that the simple digital transposition of the learning methods used during classes would not have any beneficial effect. The first thing which must be taken into consideration is the learning methodology. Contents, times, methods. The use of new technologies must be only a tool for a different conception of didactic methods.

chapter V

LITHUANIA

Vocational Education and Training in Lithuania

The VET policy and decision making in Lithuania is formed by the key institutions at the national level:

- *Seimas* (Parliament) is the supreme legislative body of the Republic of Lithuania.
- *Government of Republic of Lithuania* implements the laws stipulating education, the decrees of the President of the Republic of Lithuania and the resolutions of the Seimas, the long-term 14 national education programmes. It implements the chapter on education of the Government Programme, approves the implementing programmes and coordinates the work of the Ministry of Education and Science, other ministries and Governmental institutions regarding education issues.
- *Ministry of Education and Science* shapes and implements vocational education and training policy at the national level.
- *Other ministries* take part in shaping and implementing VET policy.
- *The Vocational Education and Training Council* functions as an advisory body for the Ministry of Education and Science and other governmental institutions in making decisions regarding strategic questions in VET. The Council is comprised equally of members representing state and municipal institutions, members representing employer and business organisations as well as members representing employee organisations.
- *The Industrial Lead bodies* are the main consultative bodies of the Ministry of Education and Science on the sectoral level in developing VET standards and VET curricula. They equally represent the social partners related to VET: employers, trade unions and education providers. There are 14 Industrial Legal Bodies established at the Methodological Centre for Vocational Education and Training.

At present 5 levels of vocational education attainment are defined. They were approved in 2001 by the Minister of Education and Science and the Minister of Social Security and Labour.

Table 1: Regulated levels of vocational education attainment in Lithuania
(*See next page*)

Level of vocational	Description of the levels of vocational education attainment	Minimum level of general education achieved
Level I	Ability to carry out simple, routine work operations	-
Level II	Ability to perform specialised work not requiring important autonomous decisions	Primary/ lower secondary
Level III	Ability to perform complicated work in areas requiring fairly responsible and independent decisions. Leads to ability to coordinate group activity	Upper secondary
Level IV	Ability to perform complicated work in areas requiring responsibility, independence, deep knowledge and specific skills. Leads to ability to organise and administrate group activity	Upper secondary
Level V	Ability to perform creative work requiring responsibility independently in concrete areas of activity. Skills based on exhaustive knowledge lead to ability to plan and assess the work, to perform managerial functions	Non-university higher education

Vocational teachers in Lithuania must have both, a professional qualification and a pedagogical competence. In recent five years the policy focus has been on reforming teachers' pre-service and in-service training systems.

Within the vocational education and training system in Lithuania there are more then 80 vocational training schools where are studying about 44 000 students (average – 550/ school), but in reality the size of schools vary from 2500 to 150 students in one school.

Based on the assessment of their competences and practical activity, vocational teachers may be awarded one of 4 qualification categories

Vocational teacher qualification category is awarded for vocational teacher who has acquired higher (tertiary), post secondary (non-tertiary) or upper secondary education and who has no teacher qualification, but has finalised pedagogical/psychological knowledge course (*pedagoginiu-psichologiniu žiniu kursas*) in accordance to the procedure set by the Minister of Education. Applicants for this qualification category must have at least 2 years subject teaching experience and should regularly improve his (her) qualification.
Persons having obtained higher and post secondary non-tertiary education and a teacher qualification automatically gain a vocational teacher qualification category.

Senior vocational teachers qualification category is awarded for vocational teacher who has acquired higher, post secondary (non-tertiary) or upper secondary education and a teacher qualification (or have finalised pedagogical-psychological knowledge course). Applicants for this qualification category must have at least 4 (latter) years subject teaching experience and be capable to organise and analyse training and learning process.
They should regularly update their knowledge, actively participate in methodological activities and disseminate good personal pedagogical practice in the training institution.

Vocational teacher-methodologist qualification category is awarded for vocational teacher who has acquired higher, post secondary (non-tertiary) or upper secondary education, a qualification in a subject taught and a teacher qualification (or have finalised pedagogical-psychological knowledge course). Applicants for this category must have at least 5 (latter) years subject teaching experience and be capable to organise and analyse training and learning process. They should research pedagogical situations, apply innovative teaching methods, regularly update knowledge, prepare teaching projects, actively participate in methodological activities and disseminate good personal pedagogical practice in the training institution and region.

Vocational teacher-expert qualification category is awarded for vocational teacher who has acquired higher education, a qualification in a subject taught and a teacher qualification (or have

finalised pedagogical-psychological knowledge course).
Applicants for this category must have at least 6 (latter) years subject teaching experience and be capable to professionally organise and analyse training and learning processes. They should research pedagogical situations and new learning strategies, develop efficient learning strategies, prepare teaching projects, develop teaching, learning and methodological resources and disseminate good pedagogical practice in the training institution, region and country.

Based on the data of Education Management Information System in 2009 senior vocational teachers constituted the biggest share of vocational teachers (47 %) with vocational teachers at 18 %, vocational teachers methodologists at 8 % and vocational teachers experts at 1 %. The remaining part (26 %) is not certified teachers.

Pre-service and in-service training of VET teachers and trainers

Vocational teachers training is organised based on a consecutive model where a vocational qualification is studied first followed by pedagogy studies. Teachers who are without a pedagogical qualification, irrespectively of their educational attainment level, are offered the pedagogical/psychological course of 120 hours duration. Additionally, 6 universities provide programmes for pedagogical vocational teachers education. Teachers may choose special professional studies (Pedagogy of occupation; the participants acquire the qualification of a teacher) or Master studies in Education (e.g. Pedagogy of occupation, Andragogy and etc.). Entrants to these programmes need first to finalise higher education programmes. Assessment of graduates is carried out in different ways: e.g. final exams, final thesis, portfolio method and etc. The Law on Education establishes that each teacher must upgrade his (her) qualification and is entitled to five days of continuing training per year. In-service training is regulated by the Regulations for Vocational Teachers Qualification Improvement. They stipulate that vocational teachers continuing training is implemented according to non-formal education programmes and informally. It is recommended that qualification development programmes would consist of competence based modules. It is set out that competences acquired by way of non-formal education or informal learning may be recognised as being a part of formal education programme or qualification.

The main institutions providing continuing training courses for vocational teachers

The Teacher Professional Development Centre under the Ministry of Education and Science. VET Unit of the Centre implements and coordinates methodical activities of vocational teachers. There are 11 VET methodical commissions established at the Centre which unite vocational teachers. These commissions discuss curricula, training organisation, vocational teachers continuing training, innovative pedagogy matters and disseminate good practice. The Centre organises short-term

courses on such topics as project management, development of the learning environment, creation of assessment system, development of training programmes/ modules and etc.

Vytautas Magnus University Centre for Vocational Education and Research. It organises continuing studies for VET teachers and schools principal and offers courses, which VET teachers can follow on a modular basis (each module is equivalent to 80 hours of study). Modules include: qualifications research, curriculum and research design; managing change; effectiveness of teaching and learning; quality management; psychology of communication and cooperation in an organisation. The studies combine theoretical and practical training. Practical training takes place in VET institution under the supervision of mentors who are successfully trained in Vytautas Magnus University since March 2007.

Continuing training services offer is also enhanced by projects implemented with the support from European Social Fund and other sources. Klaipeda University Continuing Studies Institute carries out a lot of activities focused on the qualification improvement of VET teachers as well: professional assessment procedures, study courses, seminars and projects. Over 200 VET teachers attend the various forms of learning every year.

Peculiarities of the Andragogue's Professionalization

Five domains in the Andragogue's Practice

Who is an andragogue

Within the DETVET project when dealing with different and modern learning techniques that are used for efficient studies in VET system, we would like to discuss the andragogy approach. The cause for this request – more and more adults for different reasons are entering study process – both formal and informal courses. Moreover, the regular students are becoming more and more independent and self-confident, having more experience in different study environments, that's why the traditional pedagogy approach is not helpful anymore.

The term andragogue we use when we talk about a professional working in adult education. This professional is not only a teacher working with an adult learner, but also: analyzing a situation and planning a suitable learning structure, organizing and managing a network necessary for adult education, mastering a set of tools for evaluation quality and efficiency. Despite of this thick layer of responsibilities, in Lithuania (as in the most of European countries) we can not meet a representative of the andragogue profession yet (like – teacher at school, doctor in hospital or a policeman). At the same time, the issue of competence when working with adults rises rapidly and it has been caused by following factors:

- Nowadays we experience a lot of qualitative and quantitative changes in adult education,
- Functions become more complicated, diverse,
- Work practice becomes a profession – that's why the question of professionalization is so actual nowadays.
- Changes in adult learning methods, increased supply in adult education services, new educational environment, a need to unite formal, non formal and informal learning, requires counselling and consultation.
- We have noticed that there is not enough information and researches considering the andragogue's profession and its status in the national and European level, there is no united model for the andragogue's competencies.

Andragogue's practice, roles and domains

Andragogue – an adult educator is recognized as a professional, when he/she:

- obtains competences for implementation his functions,
- recognizes himself as an expert in his sphere,
- maintains the andragogue's professional identity,
- follows the role of learner's assistant (not just knowledge transference),
- identifies himself/herself with the andragogues world community (Altet, 2000).

Despite that adragogy practice is old enough and in the world scale andragogues have already been trained for several decades – in Lithuania there are only few universities providing studies in andragogy. Adult education and training institutions are suffering from lack of qualified specialists in adult education.

Over 34% representatives of adult education institutions admitted that their specialists are not trained enough in andragogy. Provision of higher education studies in Andragogy has been started in Vytautas Magnus University, then – in Vilnius Pedagogic University, after some years – in Klaipeda University. But this is not enough as the need for well qualified specialists is growing very fast. Nowadays there are 368 adult education institutions in Lithuania and about 400 various consulting organizations that provide education, training and consultancy for adult learners and teachers. Usually the staff in adult education organizations have no special andragogic education (Juozaitis, 2008).

The aims of Klaipeda University Andragogy study program are defined by terminology of competencies, presented according to real domains of andragogues practice, typical practice situations and reflect the results that become guidelines in professionalization both for teachers and lecturers.
The new Andragogy Master Study program (KU) has also been prepared regarding to the competences approach, professionalism development and the typical practice situations.

According to prof. G. Le Boterf (2008), in the studies' process it's important to consider typical situation (or several typical situations) of the professional practice that should be managed by a student. Later, when a young specialist gains more and more experience, he will master more difficult typical situations. However, in case education and training focuses on the professional typical situation management and bases on the competence approach, a specialist in adult education will cope successfully with at most difficult problems in the future.

Next to the didactic competencies, an andragogue has to employ actual competencies, such as:

- Management of technical skills,
- Applying the competencies regarding the practice situation,
- Ability to analyze the situation,
- Identify strays in the learning environment,
- To be familiar with the personalities – learning adults, etc.
- Coordinate partnership relations between organizations,
- employ ICT, social media tools in adult education,
- Individualize education process.

A modern andragogue strives not only to create and realize different adult education programs or continuing vocational education programs, but he also has to commercialize the programs, manage financial sources, foreseen, initiate and implement the adult education policy, etc.

In mastering the adult education situations professionally, an andragogue has to fulfil the following roles:

- Andragogue – lecturer,
- Andragogue – analyst,
- Andragogue – organizer,
- Andragogue – mentor/tutor.

Evaluating the changes in an andragogue's practice, real professional work, analyzing scientific literature and various projects' material there are recognized 5 domains (spheres) of andragogue's practice:

- conceptualization,
- realization,
- evaluation/assessment,
- assistance,
- management

All the mentioned domains are united by the metadomain – competence to reflect the professional practice. That supports all the system of domains with the particular meaning. Such andragogues' practice concept is based on the multifunctional and educational paradigm.

Defining the domains we used the attitude from Methodology of prof. G. Le Boterf (2008), telling that professionalization should be provided regarding: a) presented typical professional situations and b) professional domains and functions. That's why each domain has been defined by particular typical practice situations.

Typical practice situations for the Conceptualization Domain

- Defining learning needs (training in order to be able to formulate the learning demand by identifying and analysing the principal problems of professional activity, the possessed and desired competences, by establishing a need for learning , accumulating and analysing the data for the establishment of learning needs, and making a report on the established learning needs.),
- Defining and analyzing learning aims and objectives (to identify the learning goals and objectives oriented to learning needs and make a report on the identified

learning goals and objectives),

- Concept of the course (to analyse personal qualities, abilities, skills, values, and hobbies, and to generalise them by accumulating, systematizing, and analyzing the data needed for the planning of the volume of a continuous vocational training course and its main directions
- Development of the concept (to design the conception of a learning course, to plan the content and the structure of the course, to prepare different aids, media, situations, etc., of andragogy technologies by modelling one's own and other people's learning course and plan.)
- Evaluation of the course (to assess the prepared course in accordance with the presented requirements).

The outcome of these typical situations: designing of adult education programmes in compliance with the established learning needs, goals, and other factors. The role of an andragogue in these situations – analyst.

Typical practice situations for the Realization Domain

- Analysis of learning process, (By analyzing the integrated political, economic, philosophical, and sociocultural aspects of adult education, to understand the diversity of learning situations and to be able to do the comparative analysis of andragogical activity in the context of national, institutional, and personal dimensions)
- Learning strategy implementation, (to give lectures and classes to adult learners by inculcating traditional and modern learning strategies)
- Application of andragogic methods, (in one's professional activity to be able to use different methods of promotion of the acquired experience and competences (mini-seminars, presentations, lectures for peers, discussion, case study, etc.)
- Introducing critical thinking, (on the basis of the strategy of the development of critical thinking, to critically assess the teaching/ learning environment, to acquire experience in the planning and organizing the learning process, and to be able to put the acquired knowledge to practice).
- Management of heterogeneous groups, (to understand the concepts, terms, and conceptions of heterogeneity management, as well as contemporary democratic aspirations of adult education; to be able to distinguish between different aspects of heterogeneity (in terms of age, learning ways and styles, and learning effectiveness; to analyze and compare different methodologies of heterogeneity management, by planning and assessing the expression of heterogeneity in a group).

The outcome of these typical situations - inculcation of strategies, principles, and methods of the didactic of andragogy into the adult education process given different factors that influence the adult education process. The role of the andragogue in this domain – lecturer.

Typical practice situations for the Assessment Domain

- Evaluation of the real context (to assess the historical, social, political, and economic contexts of adult education and establish their significance for different fields of adult education).
- Evaluation of andragogic interaction and practice (to distinguish between and characterize the levels of assessment (institution, inter- and intra-levels), depending on the object assessed).
- Assessment of learning outcomes (to inculcate the cumulative, educational, and other methodologies of learning assessment, given the object assessed).
- Assessment of learning outcomes acquired in non formal and informal education (to inculcate the cumulative, educational, and other methodologies of learning assessment, given the object assessed).
- Assessment of learning outcomes acquired in various learning environments (o assess learning outcomes acquired in various environments (formal, non-formal, and informal) by applying electronic survey systems).
- Implementation of self-assessment (to design and inculcate methodologies of assessment and self-assessment in andragogical activity and interaction).

The outcome – managed procedures of assessment and self-assessment of different types (depending on the object and the level of assessment). The role of andragogue - lecturer and organizer.

Typical practice situations for the Assistance Domain

- Consultations in self-study and self-education (to advise adult learners on the issues of self-teaching, self-education, and career development, given their educational and professional aspirations and their experience in the context of lifelong learning).
- Implementation of individual learning methods (to write a feasibility project of heterogeneity management in a group and implement it by modelling the process of management of a heterogeneous group in terms of individual learning ways).
- Learning situation management (to manage different situations of learning on the job and promote independent learning based on new technologies).
- Development of professional ethic and positive learning attitude (to communicate and collaborate in the framework of professional ethics, to deepen and systematize the abilities of self-realization and positive attitudes towards lifelong learning).

The outcome – ability to assist adult learner in his pursuit of the desired learning outcomes. Role of andragogue – lecturer and andragogue tutor/mentor

Typical practice situations for the Management Domain

- Analysis of adult education policy (to analyze adult education policies and to plan

the policies of implementation of continuous vocational training on its basis).

- Planning and implementing the services of adult education (to identify and analyze the aspects of management of adult education organizations (planning, organization, improvement, etc.).
- Resources management (to assess the impact of external and internal factors on education economy and finances by understanding the models, forms, and financing possibilities of educational organizations under current conditions).
- Service quality management (to be able to analyze the activity of an educational institution; to assess the situation of an educational institution and the quality of services provided by it with the help of different methods),
- Implementing team work (to understand the significance of human capital and team work for the effective activity of an educational institution).

The outcome - provision of quality services in adult education, given the education policies, the planning and organization of the process, the possessed resources, and the specificity of team work. The role of andragogue – organizer.

Andragogic Approach

Andragogue, while implementing functions from different domains, has to be well prepared in adults' psychology, various social, cultural, professional objectives and needs and be able to apply the Andragogic Approach that could be presented by the following features:

- Mutuality and reciprocity in learners competences development,
- Autonomy (developing ability to be independent – even from the andragogue),
- Recognition of the experience and skills what are already acquired in other environment – as educational factors,
- Recognition and development of the adult learner's inner power,
- Solving the real problems when developing competences.

Conclusions

From a number of literature, studies and practical sources we may draw a conclusion that andragogue's practice requires specific approach and competences. However – specialists coming to the VET sector are not prepared to this challenge. That's why we suggest that there would be an access to the sources or permanent in-service training courses system available for the specialists, assisting in acquiring and mastering knowledge, skills competences to work with adults. Andragogy study program might be one of solutions. Aside of this, there could be a set of courses organized supplementing practical knowledge or analysing the case studies that are named as typical situations in certain domains of andragogue's practice.

Results

Survey results in Klaipeda University Continuing Studies Institute, Lithuania

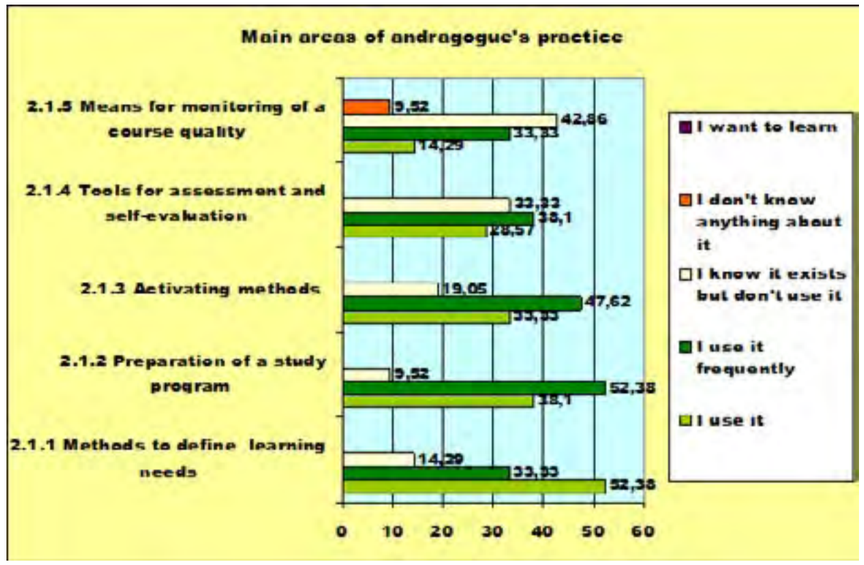
Use of education approaches/techniques for vocational education and training (VET) teachers

The survey concerning the most used and most desired education techniques was carried out in Klaipeda in the period of February – March, 2010. There were 21 respondents from Klaipeda and Kaunas VET schools and one college in Kaunas. The survey was implemented mostly by assistance of our silent partner - Kaunas Vocational Training Centre for Business Specialists.

The main characteristics of the respondents in Lithuania are:

- Sex: 19% - male, 81 – female,
- Age: 23.8% – under 30 years old, 42.9% – age between 31-45, 19.1% - age between 46-55, 14.3% – over 56 years old,
- All of them have higher education,
- Amount of years the teachers have been working within the VET system: 24% - up to 1 year, 28% - from 2 to 5, 19% - from 6 to 10, 29% - more than 10 years.
- 47.62 % of teachers have been trained to work in VET system and even 52.4% of teachers haven't had any specialized course.

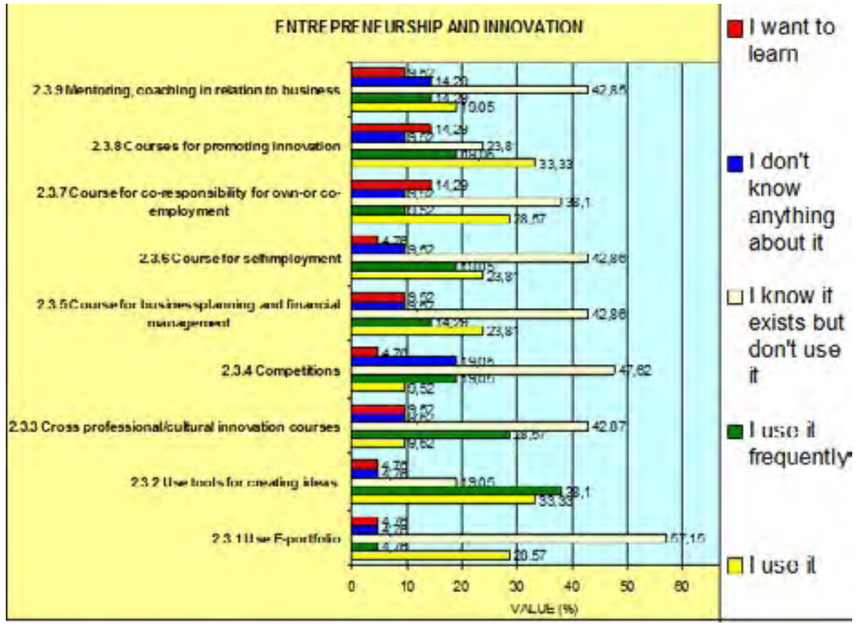
Considering the first approach in the questionnaire – Main areas of Andragogues' Practice that mostly deal with a special attitude towards the adult learner, the answers range this way:



The green columns show that the teachers are well acquainted with the main specific elements concerning working with adult people and only 8.5 of them would like to know more about means for monitoring of the course quality.

The second issue of the questionnaire – Coaching and the answers of participants range as following:

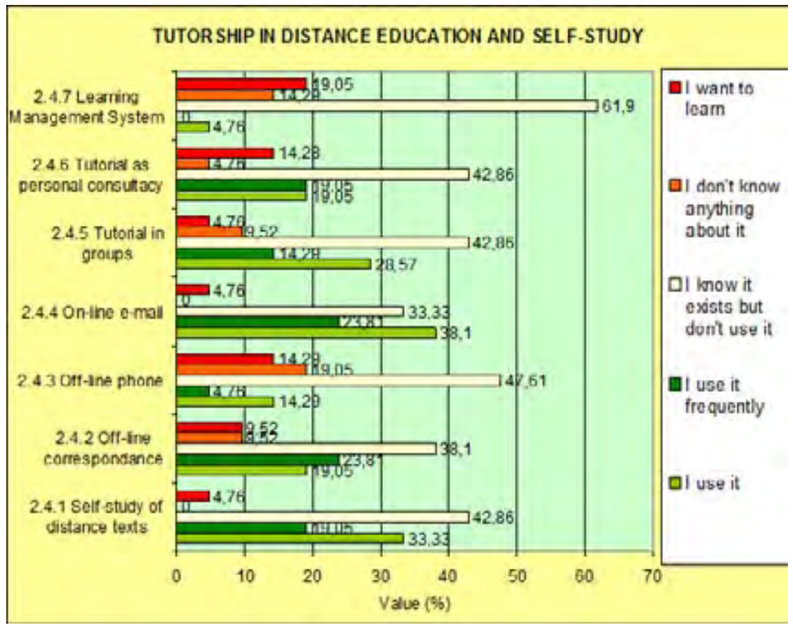
As we see – the teachers think that they use the coaching components (frequently) and there are no needs to learn more about it.The third method in our questionnaire – Entrepreneurship and Innovation has much more colourful picture:



The red colour shows that the teachers are rather keen on learning more about all the components of the method, so that fact we should consider and include more subjects in Entrepreneurship and

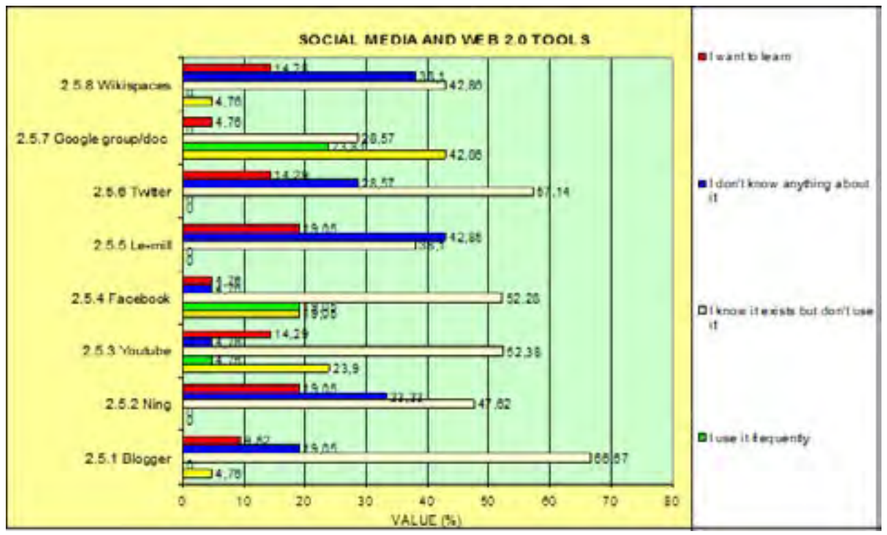
Innovation when designing our in-service training programs and planning further teachers' competences improvement.

The method No 4 discussed in the questionnaire – Tutorship in Distance Education and Self-study was defined in a following range:

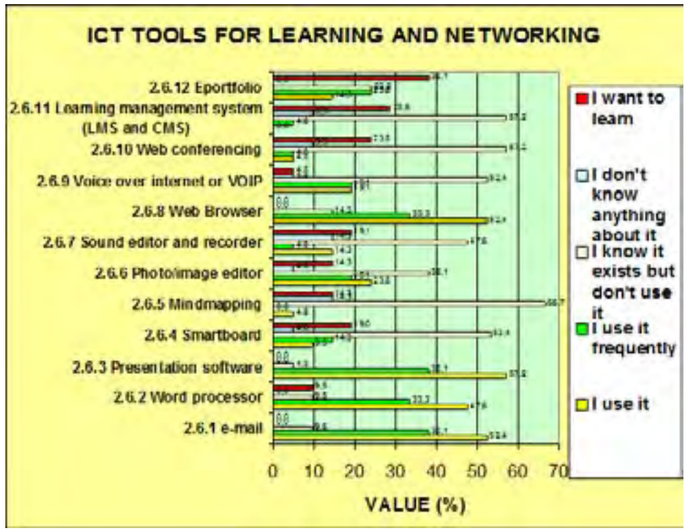


The red coloured columns show that the teachers want to know more about Learning Management System (and this is closely connected to the following methods offered by the partnership), tutorials personally and in groups, off-line phones, etc. tools for learning monitoring and encouragement.

Method No 5 in the questionnaire – Social Media and Web 2.00 Tools was the most popular among the teachers in a way that they want to know, want to learn and want to use these tools in their educational activities:



Small amount of green colour shows that the teachers are not aware of these tools as tools for teaching or learning stimulation. The white columns show that the tools themselves are well known and probably used, but not for education purposes.



The results form the questions about method No 6 – ICT Tools for learning and networking were similar to the results from the previous issue: long white columns show that the subjects are well known, but not used enough for education purposes:

Subjects defined by red colour show that there is a big demand to learn and use the tools for widening the educational possibilities.

The graphs above show that from all the components offered by partnership the most desired to be improved among the respondents are:

- Social Media and 2.00 Tools,
- Use of IT Tools for Learning and Networking,
- Entrepreneurship and Innovation and
- Tutorship in distance education and Self-study.

Thus, these four items should be considered in particular when planning the teachers' in-service training activities in Klaipeda University.

Conclusions

How did we do

After the survey was carried out within the group of VET teachers in Lithuania, it became clear that the most needed and most desirable methods to handle from those offered by the partnership are (see the graph below):

- Social Media and 2.00 Tools,
- Use of IT Tools for Learning and Networking,
- Entrepreneurship and Innovation and
- Tutorship in distance education and Self-study.

So, when making the plans for the next year the KU CSI staff will consider this information for designing in-service training activities for VET teachers.

All the issues are very well connected with each other as social media is not possible without ICT tools and networking skills, at the same time, usage of the last ones needs knowledge about tutorship in distance learning and self-learning; the challenges for entrepreneurship and innovation are hardly possible without good networking and social media in virtual environment. So, in general we will be talking about the teachers' capacity to work in virtual environment, to reach their students and to promote their learning activities in a certain subject.

The survey results were discussed in two groups: 1) with experts and decision makers working in the sphere of teachers' training within IT tools (KU CSI managers, IT engineer, Klaipeda University Virtual Learning Environment Centre (VLEC) director and managers) and 2) with VET students from Kaunas Vocational Training Centre for Business Specialists. The main questions addressed to them were:

- What ICT and media tools are teachers using in their educational activities?
- What problems are they facing?
- What are the measures to be taken to encourage teachers to use the tools effectively?

What did we see

After the interviews with IT experts, courses managers it cleared out that there is a variety in usage of ICT and virtual environment from teacher to teacher. “We have to admit there are three types of teachers” (the director of VLEC):

1) Those who have never used ICT and social media tools in education and will Never use them at all. The mentioned group of teachers usually are old fashioned, aged over 60, using their traditional methods, often rather professional in their specialty, though. They can write an e-mail or use Google search, but in general they don’t want to change themselves and they can not admit that the world is changing together with students’ minds. That’s why their students are often not following the subject in a way they are expected to do.

2) The teachers who “were born with computer” and can’t work without ICT and social media. They are usually young teachers having their laptops with them; their age is up to 30. They encourage the students to use the virtual environment, chat with them in forums; the students are often eager to follow the ideas and can reach good results – in case the teacher is good at supervision and monitoring. This group intensely use the KU Virtual Learning Environment (*http://vma.ku.lt/moodle/)*, personal and institutional facebook (*http://www.facebook.com/KlaipedaUniversity*), blogs, skype sessions and other means for learning interaction.

3) The middle group of teachers: those who mostly work in a traditional way, but are eager to use the ICT tools. They want to develop themselves in order to be together with their students, though students are often doing better at social media or virtual environment. This group of teachers is the main target group in in-service training seminars or other activities organized within the issue. There is a number of various projects funded by the SF in Lithuania dealing with teachers’ training in ICT tools use as well as VLEC organizes ongoing courses for the lecturers who would like to design, upload teaching/learning material and coordinate the learning activities in the VLE.

Our experts have unanimously outlined the main problem that teachers face in the sphere of Social media and ICT tools use: the skills are gathered only by doing things practically. There can’t be any theoretical preparation for this kind of activities. The more you do – the better you know. The interviewed students think that their teachers are not “too smart” at using ICT and social media, and most of them have really to improve their skills to catch up with the students. On the other hand – teachers do not use IT tools because they are scared to fail or to do worse then the students.

What to do

Due to the relevant project issue and well working partnership we are able to measure the status quo within the VET teachers' attitude towards their qualification improvement. DETVET clearly revealed that our teachers should change their attitude towards their students' learning process accordingly to the nowadays requirements. Meanwhile teachers do not regard the usage of social media and ICT tools as an organized learning environment (except the Moodle system) but only as tools for sharing information (mostly in a private way). The shift from teaching to learning is rather slow – in the minds of teachers, managers and even students. Teachers are paid for the hours they spend in front of the class only – all the virtual interactions are not paid, but rather time consuming, too. The methodology for proving and counting teacher's hours spent in the virtual environment is prepared, but not approved yet. At the same time, teachers often believe that they are the central figure in the educational process and students just have to follow them proving time to time if they understand the material. Students themselves often believe that they should wait until teacher gives them a material and concrete command to do something.

The shift in teachers' (and students') mind would be easier if there is a real connection with the real life in Lithuania, too – like we met in TAMK (Proacademy, Demola) and other partners' organizations. Enterprises and organizations should be actively participating in shaping each school's VET study programs and taking the students into their everyday activities' practice. Recently there was a radio program telling about changes in Lithuanian VET system's legislation when each VET institution becomes a public institution where the board is formed in a way that the most part of the seats belong to the enterprises' representatives.

Another aspect pointed by the experts – there should be much more mobilities, exchanges both within the students' and teachers' communities, so all the participants would get into the common international tendencies. When business life more and more globalises, vocational education and training must go the same route – keeping the international level and international quality requirements in mind as a pivotal aim for learning.

Chapter VI

SWEDEN

Vocational Education and Training in Sweden

The Swedish education system comprises a number of types of schooling and education, designed for individuals of different ages and with different needs and abilities. The national Agency for Education has produced a map that provides an overview of the various parts of the education system. On the website mentioned above, you will find a lot of information in English if you want a more complete presentation of the Swedish educational system.

The educational system is divided into seven parts:

1. Pre-school
2. Childcare for schoolchildren
3. Compulsory school
4. Non-compulsory school
5. Folk high schools (independent adult education colleges)
6. Higher vocational training
7. Universities and university college

Education is offered by municipalities, the state and private schools and companies. Some of the private educations are financed by the state (the school applies to the state for finance), other schools are financed by student fees.

Different kinds of vocational education and training can be found in 4 – 7.

Non-compulsory schools

Upper secondary school is free, non compulsory schooling that young people can choose after completing compulsory school. Upper secondary consist of national programmes, specially designed programmes and individual programmes. There are in total 17 national upper secondary programmes. Each programme lasts for 3 years and consists of core subjects, programme-specific subjects optional courses and project work. The programmes are: Child and recreation, construction, electricity, energy, arts, vehicle, business and administration, handicraft, hotel and restaurants, industry, food, media, natural resource use, natural science, health care, social science and technology. In addition to this, it is possible for schools to create local programmes and apply for approval.

Adults that did not complete there studies as young, can get a second chance in the adult education system, that offers both theoretical and vocational educations and the possibility to take an upper secondary exam for adults.

Folk high schools

There are 148 folk high schools - independent adult education colleges - in Sweden. Each folk high school decides independently what courses it provides, and freely designs its teaching. This means that courses can be quite different from each other. The folk high schools are financed by the government, and they are not allowed to take any fees from the students. Most of them are boarding schools (fees for bording is allowed).

There are several types of course: year-long courses, short courses, summer courses or distance courses. Long courses are of the following types:

1. General courses, which are an alternative to municipal adult education. They correspond to, and provide the same eligibility as, compulsory comprehensive school or upper secondary school.

2. Special courses can be oriented towards:
   specific areas of interest (such as music, art, the environment, international)
   professions (such as youth recreation leader, treatment assistant, sign language interpreter) groups (e.g. people with various disabilities, immigrants)

Information on the range of courses is available at the folk high schools' joint website administered by the Folk High Schools Information Service at: *www.folkhogskola.nu/*

Higher vocational education and training

A higher vocational educational college provides post-secondary school education. The courses are designed in consultation with employees and are tailored to meet the manpower needs of the labour market and lead to jobs. The content and direction of the courses may vary over time depending on the needs of the labour market. There are both higher vocational education courses (HVECs) and qualified vocational courses (KY courses).

About a third of the training is workplace experience known as Learning in Work. Advanced vocational education and training is counted in credit points, where one week's full-time study corresponds to 1 credit point. An advanced vocational education or training course can be between 40 and 120 credit points. Most however last for 80 credit points (2 years). The students must have an upper secondary exam when they apply. The age of the students vary, some come direct from the youth school, others may have been working for several years, and some even come from university studies, as they lack the connection to the labour market that the get in the higher vocational education system.

Universities and university college

As in most other countries, there are a lot of professions that demands university studies. Most of these educations are also carried out in cooperation with the labour market that will employ the students after exam.

Adult education

There are many types of adult education in Sweden, with a number of different principals. It can consist of anything from national or municipal adult education to employability courses, staff training or in-house training for those in work.

Publicly-funded adult education includes:

- Municipal adult education, which consists of basic adult education, upper secondary adult education and post-secondary training courses.
- Adult education for individuals with learning disabilities.
- Swedish for Immigrants (SFI).
- Another type of adult education is the supplementary training courses, which are government-funded courses outwith the public education system.

For more information: www.skolverket.se, then push on "in English".

Coaching as a pedagogical method

When using coaching as a pedagogical method, the teacher has two roles, the classical role as the teacher, and the coach. In their role as a coach their most important task is to support every student individually. The most important capability of the coach is to put the right questions – questions that stimulates the student's work to go forward.

Individualization

One of our keywords is "individualization". It simply means that our duty is to support the student in his or her studies based on the individual possibilities and requirements for each student. The coach can give individual support or support in groups. The ambition is also to stimulate the students to form smaller studygroups around different subjects. The aim is to support development of knowledge that the interaction between different people gives, and to train them in communication and cooperation in a democratic way. To reach the best effects and results when using coaching as a pedagogical method, it must be combined with the use of other pedagogical methods under the leadership of a competent and inspiring teacher. When the students are active and demands lessons on themes that they themselves have defined, the chances for a real successful education are very high. Other pedagogical methods that are successful to combine with coaching is for example problembased learning, case methodology and projectoriented learning methods. It is an advantage if the teacher and the coach is the same person, who has two roles. An other possibility is to work with teams of teachers and coaches.

The coach is a guide

As a short summary, coaching is the art of improving other people's achievements, ability to learn and to reach personal development. The coach is a guide and gives support to another person in her process of development, and gives her knowledge and methods to reach the goals she (or he) has put up in a given situation, for example to accomplish better and get better results. The coach helps other people to reach their most important goals.

Coaching is the modern way of assisting people to development in working life and in their personal development, and is used more and more in education. So what does coaching mean for organisations within education? 10 years ago, we talked about instructors, supervisors and mentors. An instructor or supervisor is a kind of teacher; a mentor reflects over and comes with wise advise on other's ideas and suggestions. A coach helps people in their development in accordance with certain methods. Pedagogically, coaching is often combined with portfolio methodology and different varieties of methods inspired of problem based learning and case methodology.

The mission of the coach is to help the person to create conditions to work forward, against explicit goals, which he or she decides herself/himself. The coach does not give any answers, but is a support in the persons process of development. The coach listens, asks questions, gives feedback and gives the person work or homework to do, in the development process. Our ambition is not only that the students shall learn facts and practice in different themes. They shall also be prepared to solve problems on their own, to find solutions, and take responsibility for their own personal development and life long learning. Coaching has proved to be a good method for accomplishing this.

Coaching can be defined as ”processes to set free och develop the potential of people”. This definition corresponds to the visions of Folkuniversitetet – to provide people with the best possible prospects for a richer life, by engaging them to continuously add to their knowledge and develop their skills through a variety of creative activities.

People have different ways to learn new things, and we need a variety of methods to make learning and teaching successful, effective and interesting for the students. Coaching as a pedagogical method has met more and more interest the latest years, to be used in combination with other methods.

Some years ago, coaching was only used when we talked about sports. Now the area is broader – first the methods began to be used in working life and career planning, now it is used both in education and in other areas to help people forward, for example “life-coaching”, in personal development, in rehabilitation and in leadership. You use team coaching when you want people to work better together, life coaching when you have some kind of roblems and need help to solve them (for example: personal or social problems, stress, overweight, smoking) There is labour market coaching, when you coach unemployed people to find and keep the new job. Coaching has become a method for development within several areas.

11 requirements for coaches

The International Coach Federation, ICF, has stated 11 requirements for coaches. In Folkuniversitetet we have adopted them as fundaments in coaching as a pedagogical method, and in our own education of coaches. They are regarded as core competencies for a coach:

1. Ethical code
   We adopt the ethical code that ICF has decided on for coaches.

2. Agreement
   We are very clear about ours and the coached persons commitments. Our type of

coaching must correspond to the persons needs. We respect the persons as independent individuals and do not mix coaching with any other kind of relation.

3. Confidence and security

Together with the coached person we create a spirit of understanding. The key words are integrity, honesty and sincerity. We do not enter emotional areas without first giving the persons a chance to decide wether they want it or not.

4. Mindfulness

A coach is engaged with the whole of her/his mind and thoughts, feelings and intentions in the dialogue and the themes of it. It is an engagement that is not pushy but setting free. You see things you were not aware of before. Strong feelings can be taken care of without they get out of control. The coaching makes the persons more aware and make them more daring in the relation to collegues, family, friends and in other situations.

5. Active listening

Focus is completely on what the person wants do discuss and learn more about themselves, reactions, abilities, feelings and so on.

6. Questions that sets the thoughts free

The questions of the coachs are ment to stimulate the persons own thoughts and considerations. They shall make the person open to talk about what she or he regard as unclear and hard, or even stupid. The questions are asked to make the person look forward without loosing the now and past as important experiences.

7. Straight communication

A coach must be clear. There is no hidden agenda. The coach must help the person to see problems from different views, consider needs of changes and accept that different people sometimes see the same thing in completely different ways, and that it is not necessary so that one is correct and the other is wrong.

8. Open ideas

The perspectives are made broader. The coach and the persons see themselves as they actually are, and how they want to be. In this way, strengths and experiences from the past step forward and you can also see the needs for learning and personal development. The persons find out what is important and not important to discuss with the coach, and people open up for new thoughts and new ideas.

9. Creation of a plan of action

The coach and the person make a plan of action together. This is followed up and revided when needed. The goals are evident and so clear that the person and the coach really can see when they are going to be fulfilled or to ambitious.

10. The plan of action is carried out

The coach is aiming at helping the person to see chanses for learning, in communication, on the webb, in dayly life and so on. The coach gives feedback and support. The persons get trained to see new possibilities, make considerations.

11. Development and responsibility

The coach helps the persons to evaluate and get structure on the information that has been the result of the discussions, and make summaries together. The coaches must help the person to develop a self-confidence and a strong and realistic belief in their own abilities.

Results

Folkuniversitetet consists of five independent foundations tied to the universities of Uppsala, Lund, Stockholm, Göteborg and Umeå. Folkuniversitetet is represented in about 45 cities in Sweden and in about 10 cities abroad.

There are a lot of different kinds of vocational education and training within Folkuniversitetet. Folkuniversitetet offers courses from only a few hours to full time studies for several years. For example, there are studycircles in business, IT, marketing, language, communication, leadership, and a lot of other subjects, where the students meet once a week for some months. There are intensive courses in a couple of days, labour market educations, inhouse education for companies, higher vocational education and training, which is full time educations for two years.

The questionnaire was sent to about 30 teachers in different subjects and courses within vocational education and training. 18 of the answered. Beside this, (and after the questionnaire was done) one of our managers of education has discussed the questions with his staff of teachers in their yearly planning and development dialogues. The questionnaire and the answers have been published in the DETVET blog. (*http://detvet.blogspot.com*), for those who want detailed information.

Profile of the respondents

- 78 % are more than 45 years old. They have professional experience of the subject they are teaching.
- 10 males, 7 females answered the questionnaire, and all of them have some kind of university education.
- They teach in a lot of different subjects, for example: economy and business administration, leadership, the personnel sector, business law, project management, coaching, qualified selling, marketing, management, project process, group process, geographical information systems, food technology.
- They teach in different kinds of courses, private education, qualified vocational education and training, labour market courses.
- 61 % have been teaching for more than 6 years.
- 66 % of them have some kind of specially training to work in VET system, mostly in • councelling, guidance and coaching, pedagogics for adult education.

Use of the education approaches/techniques

Andragogue's practice: Between 50 % and 78 % use the specifiec methods, or use it frequently,

and about 10 % want to learn more about them. It is surprising to find that about 20 % know they exist but don't use it, or even don't know anything about it.

Techniques based on coaching: Almost all of our teachers know about it, and use it, or use it frequently. None expressed the wish to learn more.

Entrepreneurship and innovation: Between 16 % and 78 % know about or use the applications mentioned in the questionnaire. The rest of them know they exist, but do not use them. The most remarkable answer was that 38 % did not know about e-portfolio, and did not express any wish to learn about it.

Tutorship in distance education and self-study: Almost everyone know it exist, and between 27 % and 56 % use some of the mentioned distance techniques in their work.

Social media and web 2.0 tools: it was very surprising to realise that most of the group don't know anything about it, but it was interesting to find that quite many want to learn.

ICT tools for learning and networking: E-mail, word processors and presentation software are commonly used by most of the teachers. Quite many also use mindmapping and the web in their teaching.

Which of the education approaches/techniques do the teachers want to approve

There is a great interest in learning more. Almost half of the group want to learn more about social media and web 2.0 tools, as well as about tutorship in distance Education and self-study coaching. About 1/3 want to learn more about the other areas that were presented: The main areas of andragogue´s (adult educator´s) practice, coaching, entrepreneurship and innovation and the use of IT tools for learning and networking.

Result of the planning and development discussions

As mentioned above, one of our managers has discussed the questions from the questionnaire with his teacher staff. This was done after they filled in the questionnaire. It is very good to find that most of the teachers agree or partly agree that the have gained new knowledge within andragogue's professionalizations during the project period.

To go on with

The use of social media is of big interest, and the most wanted area of development. It is not only another andragogue's technique, it is a new way of learning and communicating. And to learn to use social media, you must use it – learning by doing. There is also an interest in learning more about andragog's practice in common, as well as in tutorship in distance education and self-study and the use of ICT for learning and networking.

Conclusions

How did we do

This project has given a group of people in Folkuniversitetet the possibility to explore new and modern pedagogical methods, especially those related to the use of ICT and social media. First, we gathered an overall view of the development processes within this area in our organization. During the last few years, we have quite a lot of development resources and personal education in the use of ICT and social media in education, as well as in andragogy, especially in coaching, portfolio methodology and problem based learning.

Therefore it was with big interest we made the questionnaire among a group of teachers in the VET area, and we also were very interested to compare our results with our colleagues in the partnership. We started to work out the questionnaire in the meeting I Malmö, and then continued on the meeting in Sant' Angelo in Vado. We sent out the questionnaire to 20 teachers in vocational education and training, and got answers from 15 of them. It is important to mention that our VET-teachers are not fulltime teachers, they also work in their professions. This is a demand we have on our VET teachers, that they must have experience in the profession they teach. It means, that that they may lack professional education in teaching. In stead they have a very good knowledge of the work, the business and companies in the the business. They also have a pedagogical interest and ability, and talent to stimulate and engage their students. But they have perhaps not the necessary time to keep up with pedagogical and ICT development.

What did we see

As the results of the questionnaire are published in another article, we will not repeat it here. We were surprised that almost everyone knew about coaching and used these methods, as well as the use of ICT in their work. It was also surprising that so few knew about social media – but there is a great interest to learn more about it.

What to do now

There is a great interest in learning more. Almost half of the group want to learn more about social media and web 2.0 tools, as well as about tutorship in distance Education and self-study coaching. About 1/3 want to learn more about the other areas that were presented: The main areas of andragogue´s (adult educator´s) practice, coaching, entrepreneurship and innovation and the use of IT tools for learning and networking. The results of the questionnaire has been published on the projects blog and in Folkuniversitetet's Intranet. We have been discussing the needs in our executive bodies, both on regional and national level. We are planning to continue the development processes in flexible learning and the use of ICT on a national level, and are very interested to continue the development in transnational partnerships.

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