



DENMARK NATIONAL REPORT “THE SITUATION OF INNOVATION IN THE EDUCATIONAL AND TRAINING DANISH POLICIES”



MSKC Denmark

INDEX PROPOSAL FOR THE NATIONAL REPORTS ABOUT INNOVATION IN TRAINING & EDUCATION

1.- **CONCEPTUAL FRAMEWORK: What do we understand by Innovation ability, by competence, by formal, non formal and informal learning... In all, what is our subject of study?**

Innovation Ability:

I believe that the ability to be innovative arises in our upbringing (heritage and environment) and stimulation of the ability, and is best described by the following statements and my picture of getting something new with value.

1. "Innovation is the ability to see change as an opportunity – not a threat"
2. "Learning and innovation go hand in hand. The arrogance of success is to think that what you did Yesterday will be sufficient for tomorrow"
3. "A dream with courage is innovation... A dream without courage is a delusion"



Getting ideas: Fantasy, imagination

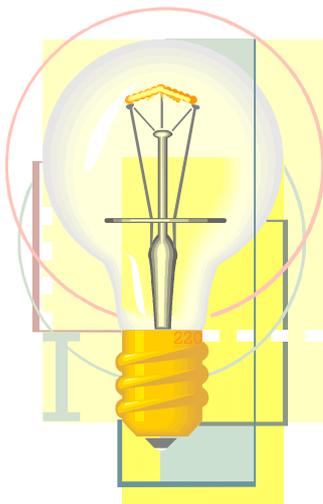
Entrepreneurship: From vision to action

Creativity: To create

Creativity and innovation

Creativity and innovation do not come by itself, but we would, and we must work to develop it. The relationship between the two concepts are:

- Creativity is about being able to think new
- Innovation is about wanting the new, along with other
- Creativity is difficult to evaluate and assess
- Innovation is evaluated based on a utility
- Innovation is often a social process where the users, the community, "the other" is part of the process



Kim Lauritsen

COMPETENCE IN DENMARK

The Danish Government has adopted a law about amending a series of laws regarding the expansion of the recognition of informal and non-formal competences to the fields of adult and continuing education, Law nr. 556 of the 6th of June 2007. The law gives all the citizens access to the recognition of the informal and non-formal competences.

In Denmark there is a wide political backing to promote the recognition of informal and non-formal competences. The labor market parties support also the focus on prior learning. In this respect, Denmark is on a par with the international competence-

political agenda stated by for example EU, OECD and The Nordic Council of Ministers. Recognition of non-formal and informal competences is seen by all the international players as a part of the strategy on lifelong learning. Denmark is in the lead with its initiatives on the area of non-formal and informal competences.

Already in 2004 there was a wide political backing to the informal and non-formal competences as an important focus area, when the report "Recognition of non-formal and informal competences in the education" was presented for the Parliament. The Ministry of Education, The Ministry of Science, Technology and Development, The Ministry of Culture and The Ministry of Economic and Business Affairs were behind the report.

On this background, there was adopted a comprehensive legislation complex, which defines the future rules and frameworks for the assessment of non-formal and informal competences within adult and continuing education.

The Danish Ministry of Education has published in 2008 a handbook regarding the assessment of prior learning (formal, informal and non-formal competences) within adult and continuing education.

The handbook presents a phase-divided model for individual assessment of prior learning together with a series of examples on how the assessment of the prior learning can be accomplished in the different types of educations.

The model contains the following phases:

Introductory interview and guidance

Documentation gathering

Assessment of prior learning

Recognition of prior learning

Final feedback and guidance.

1. Introductory interview and guidance

By an introductory interview with a representative from an educational institution, a person, who wants to obtain an assessment of the prior learning, has the possibility to be oriented and guided regarding the possibilities to assess the competences in connection with a requested education.

The educational institution's recognition of a person's competences depends on the purpose and the result of the assessment within the frames of a concrete education.

That can be:

- to fulfill requirements for a formal education as a condition for admittance to the education (including an admittance certificate with a view to apply later on admittance to that concrete education);
- to draw up a plan for a reduction or an individual planning of a concrete education;
- to issue an education certificate for all the education concerned or for completed parts of it, or competence certificate for completed parts of an education, in accordance with the rules for each individual education.

During the interview, the person is helped to put into words the competences which she/he wants to be assessed and recognized. This must be done in such a way, that a realization process is set in motion, where the skills and knowledge which the person hasn't been aware of also is made visible and thus becomes object for the competence assessment.

2. Documentation gathering

In preparation for the competence assessment, it is necessary to provide a basis for the assessment. The person, who applies for a competence assessment, shall contribute self to the documentation of his/her prior learning.

Apart from the documentation of the formal competences (diplomas, certificates), it is necessary to provide documentation for completed educational courses and for informal and non-formal competences acquired in the work life or in connection to adult education, association and spare time activities.

The documentation can include many different types of documents, as for example:

- Course certificates and course descriptions;
- Certificates from private course providers;
- Copies of the supplementary labour market pension, which shows the person's former terms of employment;
- Recommendations from former employers;

- List of professional and organisational positions of trust;
- Statements from leaders and trainers in association's work;
- Statements from teachers and principals from adult liberal education schools;
- Different types of CV's, including the Europass;
- Different types of competence profiles;
- Tests results

"Min kompetencemappe" (competence portfolio)

"Min kompetencemappe" ("My competence folder") was developed by The Danish Ministry of Education in cooperation with the labor market parties with a view to support the documentation of the prior learning in connection to the accomplishment of a competence assessment.

The "folder" is a form of CV – framework or portfolio for documentation of the prior learning, which an individual has obtained no matter the context.

The "competence folder" is freely available on the Ministry of Education's web site: <http://www.minkompetencemappe.dk> and it is free at charge to use materials.

Documentation from adult liberal education, association activities, etc.

There has been developed a specific tool in three versions for self-assessment and documentation of competences obtained respectively in association activities, voluntary social activities and adult liberal education. The tool has been developed by The Danish Ministry of Education in co-operation with a series of organisations in the third sector.

The tool can be accessed on the following web sites: <http://realkompetence-frivillig.dk/> and <http://www.realkompetence-folkeoplysning.dk/>. The assessment undertaken by using these tools can also be included as an element of "Min kompetencemappe" and there is a link to the three web sites inside the relevant sections in the competence folder.

By working with these internet-based tools, a person can get a personal awakening and put his/her competences into word. The tool, which is in form of a questionnaire, gives a systematic assessment

and identification of the following competences: social competences, learning competences, creative and innovative competences, IT competences, self-management competences, intercultural competences and organizational competences.

This self assessment can be supplemented with an interview about the results of the questionnaire. Associations for voluntary and social work or adult liberal education institutions, for example the folk high schools, can offer this kind of support in order to qualify and document the results.

3. Assessment of prior learning

The task to accomplish the assessment of prior learning rests with the educational institutions. The competence assessment is always accomplished starting from the objective of each individual education and respectively subject, and in some situations, starting from the admission requirements.

Concurrently with the description of the education objectives in competences, it becomes easier to assess and recognize the competences, which are not obtained inside the formal educational frameworks.

There are a series of different methods for the assessment of prior learning depending on which competences a person requires to be assessed. It is up to each single educational institution to choose the most relevant methods.

The competence assessment can be made on different locations, for example a classroom or a workshop inside an educational institution or inside a company, where a person can demonstrate his/her practical skills.

Examples of methods can be:

- Individual interviews;
- More or less structured interviews;
- Different forms of collective interviews, exercises and role play;
- Papers and tests;
- Oral tasks;
- Practical exercises;
- IT-based tests.

It will often be necessary and appropriate to make use of different methods for the assessment of prior learning.

4. Recognition of prior learning

When an educational institution has made a prior learning assessment relative to a specific education or educational objective, it will have a basis to consider if a person's competences can or cannot be recognized. Thus, the educational institution makes a decision regarding the recognition of the prior learning. This decision lies on the documentation, a person has presented and on the concrete assessment process a person has accomplished.

If the educational institution reaches the conclusion that a person has the non-formal and informal competences corresponding to a specific education or educational objective – or to parts of these -, then the institution has to recognize these competences.

Afterwards, the educational institution has to issue a certificate as a result of the competence assessment process or to draw up an individual education plan.

The educational institution issues an education certificate for the whole or a part of a specific education in accordance with the existing rules in the area of education (in connection to subjects in the general adult education and the general upper secondary educations it is called a competence certificate). If it is not possible to issue an education certificate, the educational institution issues on request a statement concerning the competences, which can be recognized in connection to an educational objective.

Likewise, there can be issued an admission certificate, when the institution has considered that a person has sufficient and relevant basis to be admitted on a specific education, where a formal education is required. An admission certificate can be used on a par with formal certificates by a person to be admitted on an education.

5. Final feedback and guidance

On the basis of the assessment of the prior learning, a person must receive a feedback regarding which competences have been recognized and which have been not.

The person's informal and non-formal competences shall afterwards be compared with the possibilities which she/he might have in order to be admitted on a certain education if this is what the person wants to use the competence assessment for.

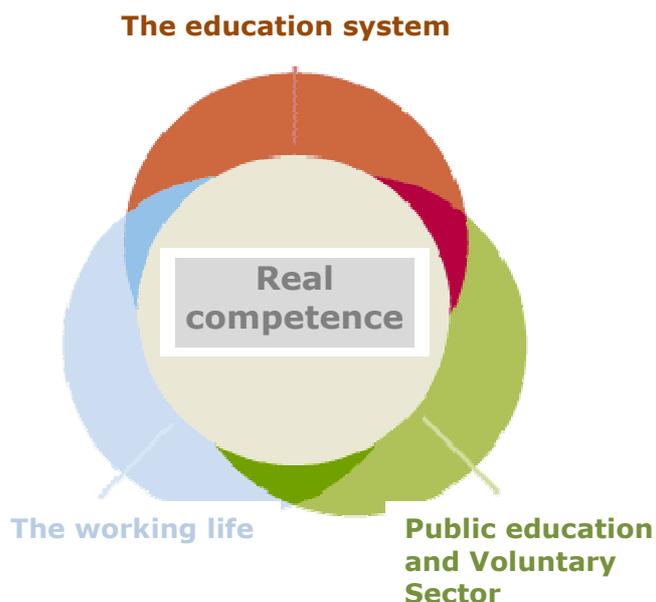
At the same time, the educational institution can guide a person regarding which competences she/he needs to obtain in order to reach a requested competence level.

The guidance can also be used to help a person make her/his relevant competences visible and through this competence assessment process find out what she/he wants to use these competences for in the future.

Real Competence:

Real competence involves a person's knowledge, skills and competencies. This applies whether they are obtained in the formal education or in work, as we learn on the job or participating in-house employee training. It can also be when we are in the public information implements a college residence, and thereby get personal and social skills when we take a computer course at night school or participating in the voluntary sector in various activities, such as an active volunteer in a charity.

The figure illustrates the three learning areas:



Recognition of prior learning is about enabling the individual's overall skills and qualifications in the center. Not only what you have on paper. It places new demands on the development of appropriate methods that ensure a reliable assessment of the person's prior learning, including skills acquired in the workplace and in public information and association activities, etc..

Increased recognition of prior learning requires the same time that individuals, enterprises, social partners and public awareness and voluntary sector actors to assume their responsibility to raise the profile and demonstrate competence.

Better interaction between the different learning areas offer many opportunities for the benefit of individuals, businesses and society:

- It is motivating for the individual, where the emphasis is on what individuals can actually be.
- It will highlight the skills of individuals and contribute to all - and perhaps especially the practical scale - could better exploit their potentials.
- It can provide the unemployed and refugees / immigrant's better opportunities to get started in the education and qualify for employment.
- It supports a more targeted training demand and training efforts.
- The financial resources better used when training to avoid duplication, and when the individual is faster through the education system.
- It will help raise the overall level of education in society.
Recognition of prior learning in education could create new and better conditions for a power boost and the increased mobility in the Danish labor market.

This excerpt is included in the publication "Recognition of prior learning in education - Statement to parliament" as chapter 2 of 6 © The Ministry of Education 2004

Learning

Bio psycho logic learning can be defined as processes, which create new neural patterns in the brain / body and / or already established patterns of enhanced or weakened.

Learning can be defined as psychological processes by which a person acquires new skills.

Learning can be defined as pedagogical processes by which an individual acquires intentional competence.

One can say that a person learns, also "designed" or "formed". If there is a high degree of individuality and honesty in the learning process, it is called in the educational world "formation", while rather talk about "training" when learning processes are intended primarily of curricula and educational institutions.

Formal Learning:

Definition:

Formal learning can be defined as learning that takes place in organized and structured framework in an education or in a course context (eg. At work). Formal learning is structured in terms of learning targets, time and assistance from others. (Coombs & Ahmed, 1974; EU, 2007).

Formal learning is historically closely linked with teaching. In the early twentieth century the school-based education was considered as the place of learning. Learning was synonymous with education and was therefore designated formula (Dewey, 1916). This tradition is somewhat maintained to this day, with pupils learning outside school often described as non-formal (non-formal, semi-formal or informal).

References

- Coombs, PA and Ahmed, M. (1974): *Attacking Rural Poverty: How Non-formal Education Can Help*. Baltimore: John Hopkins University Press.
- Dewey, J. (1916): *Democracy and education*. New York: Macmillan.
- EU (2007): *Validation of non-formal and informal learning in Europe*. Luxembourg: Office for Official Publications of the European Communities.

Informal learning

What is informal learning?

Learning taking place outside the education system frameworks has traditionally been termed informal (Coombs & Ahmed, 1974; Dewey, 1916). Informal learning can be described as learning that takes place in daily activities related to work, family or leisure. Informal learning is not organized or structured in terms of objectives, time or assistance from others. Informal learning is not usually found interest

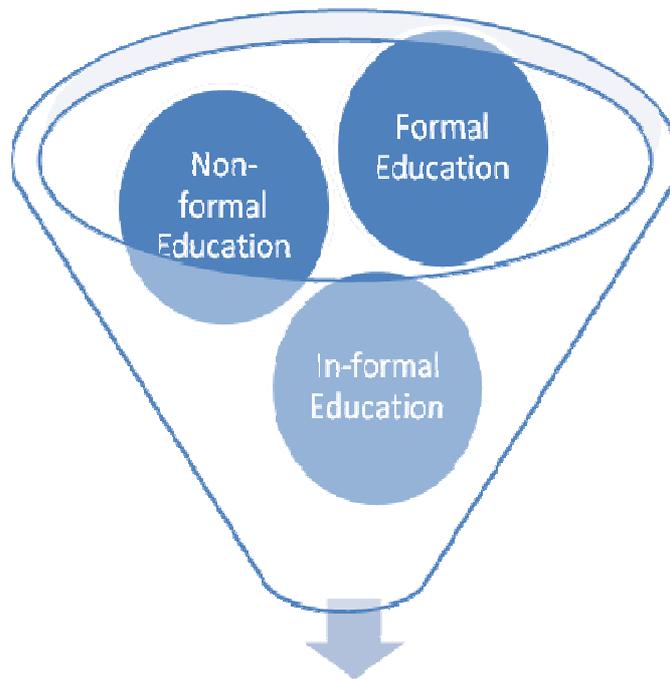
from the learner's (EU, 2007).

This tradition of learning describes the formality at an organizational level. In this tradition refers to museums as informal learning environments because they are not part of the established formal education system.

Alternatively, the formality of learning described in terms of individual experience of the situation (Falk, 2001; Malcolm et al., 2003). This has the consequence that learning can be described as informal in school, despite the fact that school is formal. Similarly, very teacher-led courses in museums are perceived as formal (Hofstein & Rosenfeld, 1996). This tradition describes the plea at a psychological level.

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- Coombs & Ahmed (1974): *Attacking Rural Poverty: How Non-formal Education Can Help*. Baltimore: John Hopkins University Press.
- Dewey, J. (1916): *Democracy and education*. New York: Macmillan.
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Real Competences

2.- **STARTING POINT OF THE STUDY ANALYSIS**

- The persons acquire during their whole life abilities and competences linked with the INNOVATION. All these abilities are acquired in different learning environments. Anyway the learning of these abilities does not reach the 100% of the population.
- The acquisition of these abilities is more related with non formal and informal learning contexts. Traditionally, the formal teaching and learning (and to a certain extent, the non formal) has forgot the development and acquisition of these abilities or they have given a “background approach”.

3.- **THE ABILITIES AND COMPETENTES LINKED TO INNOVATION IN MY COUNTRY. State of art.**

Ministry of Education says the strategy for training and entrepreneurship is:

An international competitive entrepreneurship culture does not come

by itself. The author requirements for the Danish education system and requires far more students and teachers than today comes through training, giving them skills in entrepreneurship at a high level. To achieve this we need:

- Creating management support at educational institutions, regions and municipalities
- To educate and train teachers
- To increase the availability of courses and subjects in educational institutions of learning in and about entrepreneurship in the broad sense
- To make room for courses and subjects in the curricula and ensure that the merit system and examinations makes it attractive for students to follow courses and subjects
- To ensure cooperation on the entrepreneur field across disciplines and educational institutions.
- To build a research-based knowledge base about education in entrepreneurship
- Make visible the benefits of increased education in entrepreneurship at all levels of education
- To enhance pupils' and students' interest in entrepreneurship.

I have had email correspondence with the Ministry several times and we have reached above covers the Danish government's policy in 2010.

Valorization and development of abilities in Education & Teaching. Starting point. Is being done anything structured, in the different education levels, to encourage all these abilities?

The Danish ministry of education have made a new course:

Pioneering Training

As a participant in the pioneering training you will on the first modules work with, how specific tools and methods can develop students 'and students' innovative capabilities.

Training hub is active involvement of everyday practice in the form of action-learning cycle. In this way, the contents of Pioneering Training as defined by the current challenges and needs.

After completion of courses you have helped to develop tools for practical use when everyday life must change at home at your school. It becomes your mission to spread ripples on water, by supporting and encouraging colleagues in their own education to go ahead with their own pioneering projects. The training will be given to innovative pedagogy, networking and training redirected to provide your skills to colleagues.

Pioneering program consists of four modules, spread over approx. 6 months. A module is equivalent to a full day. This means that participants are able to take four full days out of their daily instruction spread out over a half years.

Ref: www.pionerprisen.dk

Valorization and development of abilities in the Vocational Training for employment. Starting point. Does it take into account for the employment and unemployment persons training?

Training for employment

There will not always take account of people's education and background when creating courses targeted the labor market, these courses are often standards / shelf courses used again and again without rethinking and any kind of vision.

Educational institutions are trying to look at unemployment within certain disciplines before they offer skills upgrading courses, they often lack innovative thinking in relation to future requirements and possibilities of adding the areas some new tools that make everyday life easier or more challenging for each participant.

Valorization and development of abilities in the employment and persons Management. The enterprises, are they doing anything to develop- valorize theses abilities and learnings?

The enterprises

Businesses use the resources offered by employees through clarification of their skills.

www.kompetencespind.dk

Then they send staff to our educational system that recognizes competence through course certificates and ensuring the visibility of the newly acquired ability / skills.

Conclusions: Are the starting point ideas true? No? ...

Conclusions

I can conclude that there are major gaps in our education systems in relation to innovation and visibility of these abilities.

The starting point affects the proper angle to the first point where it is alleged that we are not all 100 percent of the population to benefit from hearing about the development.

The starting point affects the proper angle to the second point, which assert that one has forgotten innovation and visibility in the traditional training are required.

Now, new questions:

Are the skills measurable?

How do we promote these abilities?

Are we born with these abilities?

4.- EXPERIENCES AND BEST PRACTICES: Experiencias y mejores prácticas. It seeks to identify some experience that it's being developed in our country to encourage these abilities

Minimum of 2 experiences, from the education or from the society, from the enterprises or from the social agents.

Young Enterprise:

To find the best innovative way to train on, I contacted Young Enterprise where I came in contact with Svetlana Drevski who tells the following about their project:

Young Enterprise is an international non-profit business and enterprise education organization, with a Danish head office in Odense and several regional branches. In regional Zealand (Storstrøm) YE has existed since 2004.

YE offers a range of programs, based on the principle of Learning by Doing, which brings volunteers from business into the classroom to work with teachers and students. Some of their programs enable students to work together to run their own real company. Others use games, hands on activities and role play to develop skills and capabilities for business and enterprise.

YE is mainly targeting high school and business college students as well as elementary school students. In region Zealand (Storstrøm) YE is primarily activating business college students.

The businesses and volunteers that support Young Enterprise take an active role in building a better-motivated, educated and enterprising workforce, at the same time making a real difference to the existing lives and future potential of young people who live and attend school in their area.

The most significant YE program that has been implemented in the region is Company program. This activity is primarily targeted business college and technical high school students (HHX and HTX) by the common purpose of enabling young people to learn about the world of work and to develop attitudes and skills for personal success, lifelong learning and employability through the real experience of running their own company over one academic year.

Young Enterprise student companies elect a board from amongst their peers, raise share capital, research markets, source materials, organize production and sell their products before preparing an annual report, liquidating the company and paying dividends. Through this, students develop skills such as decisiveness, enthusiasm, flexibility, the capacity to mix with others, creativity, planning, self confidence and the ability to communicate effectively. Student companies are competing on sub-regional, regional and then on national level.

The final competition is international, where all national winners from European countries are competing with each other. Through the past several years the participating students from region Zealand have demonstrated great results in the national competition and were among prize winners several times.

Greve Business Center

Purpose: The school runs with five different line-bid for its 10th classes. Each line cultivates his special touch with industry. It is

school anxious to tell students that jobs and business opportunities are exciting and diverse and to give students the opportunity to become acquainted with a wider range of "futures". Running a business is one of those opportunities, but this initiative seeks wider.

Background: The school places great emphasis on its enhanced business collaboration, among others operated with great assistance from Greve Business Center.

Educational, vocational and occupational guidance is often so terrible "dust", so this is also an attempt to make it more exciting and relevant.

Form: Each of the five lines of work with themes such as ICT or design. The switch to business is based on these themes. Students solve problems for businesses. The school will also hold a one-day workshop with presentations from particularly exciting business types.

Description: Firms providing tasks for pupils, which resolved over a week in close cooperation. Students visiting the company and speak with owner and staff to get an idea of production and working form. Tasks carried out by management and students agree to resolve, inter alia, the design of a new graphic line for the company or setting up an account. Corporate representatives are included in the evaluation of the tasks.

Workshops held over one day. There are usually six different messages in the program where students can join the three. Businesses - including entrepreneurs - talks about how they started their business, and how it operates. Greve Business Center contributes lectures on for the conditions for running a business. The companies themselves who organize their own observations and the school make no attempt to try to influence the distribution shape.

For the workshop trying to find business school types who are very special. You will like to introduce thought-provoking life outside the completely normal 4-8 job types. For example, the school had the Sirius patrol visits and a rock band. There was also room for more general business forms, ranging from sandwich bars to IT companies.

An attempt to run the workshop "adult" as a great conference with presentations and questions - and fruit during the breaks.

Experience: Students expressed a high satisfaction with both tasks and workshops. Especially bring messages from and visits to the slightly more extraordinary and spectacular business types much time with students. It expands greatly horizon compared to the career choice that is imminent for them.

Since it is the school's stated profile to cultivate professional cooperation, so the teachers are generally also strong support for the activities. It offers teachers a year 2 days of work experience as part of the strengthening of this profile. It is an offer that most teachers are very happy.

Main problems: The most difficult is to find companies that have the resources to engage in cooperation. It is not because the interest is missing, but often reality businesses takes over, and they get busy with many other things. The motivation amongst teachers if companies canceling or pushing agreements - apparently without fully recognizing the great organizational work is in getting a class prepared and made ready. When we talk past each other on these points, there is a tendency to prejudices about each other cemented unnecessary.

- **Bottom Revision:** 27.09 2007th www.emu.dk © 2010th

The Creative Platform:

Introduction

The Creative Platform is a new pedagogical approach where the creative process is the mean to any kind of learning. The Creative Platform is developed at Research center for the Creative Platform at Aalborg University, Denmark. The Aim in developing The Creative Platform is to develop a pedagogical approach where the students creativity is developed at the same time as their professional knowledge. The Creative Platform is Open Source and all teaching materials are offered for free for anyone who would like to use them.

In Denmark we have developed a number of teaching materials, among others, together with Young Enterprise. To Young enterprise we for example we developed complete materials for the primary

school and a course for teachers in how to use The Creative Platform in their own teaching. In this and other similar courses around 400 teachers have participated.

We have documented The Creative Platform in a number of books and papers which can be found at our homepage: www.denkreativeplatform.aau.dk. We also posted a blog for The creative Platform at www.denkreativeplatform.dk. Here around 25 professionals within the educational community participates in further development of The Creative Platform.

Inside the educational system the target groups are all levels from primary school to Ph.D. level. At the moment we are involved in projects in primary schools, high schools, Universities and technical schools. The Creative Platform is a pedagogical approach which teach children and adults to *think and behave* more creative during their study. There is no limit to where this approach can be used.

At the Research Center for The Creative Platform we are doing research in how to use this complete new way of pedagogical thinking in different settings. Up til now we have been focusing on inter disciplinary teaching and learning. Now we focus more on creativity in single subject teaching and learning. It is a research project called "Professional understanding is a creative process". Besides the research center different networks and companies are developing and providing teaching based on The Creative Platform. Within the educational system the largest is Fonden for Entreprenørskabs network for The Creative Platform. Here around 25 professionals are working with The creative Platform.

What do we have to include? Aim, Objectives, Outcomes, Activities, Target Groups, Resources used, Indicators and Sources (In order to issue the way to obtain the information, for each experience please use the below chart based on the Logical Framework methodology)

	SUMMARY	INDICATORS	CHECKUP SOURCES
AIM	Develop a pedagogical approach where		Svetlana and Søren Hansen

	the students creativity is developed. Building a better-motivated, educated and enterprising workforce		
OBJECTIVES			
OUTCOMES	Complete teaching materials		Young Enterprise
ACTIVITIES	Education of teachers		
TARGET GROUPS	Primary school to Ph.D.level		

4.- LESSONS LEARNED FROM THE ANALYZED EXPERIENCES TO REACH THE TRAINING INNOVATION OBJECTIVES:

The following can be used:

Ability to be innovative is created in our upbringing by stimulation.

There is a willingness in government to promote innovation in teaching.

There are at beginner level developed several tools to promote innovation.

All three projects have parts we can use in the future.

The following could be improved:

Visibility of innovation in relation to power/competence tools.

Describe how a man contains such a gene-ability.

5.- ANNEXS

- Sources: webs and bibliography

Page 5 www.minkompetancemappe.dk

Page 5 www.realkompetence-folkeoplysning.dk

Page 10 Coombs & Ahmed 1974

Page 10 Dewey, J. 1916 Democracy and education. New York: Macmillan

Page 10 EU (2007) Validation of non-formal and informal learning in Europe.

Page 11 Dierking, LD Falk, JH Rennie

Page 13 Ministry of education:

CharlotteRomlundHansen

email: charlotte.romlund.hansen@uvm.dk

Page 13 www.pionerprisen.dk

Page 15 Young Enterprice:

Svetlana Drevski email: svdr@hssyd.dk

Page16 Greve Business Center:

www.grevetiendeklasseskole.dk

Page 18 The Creative Platform:

www.denkreativeplatform.aau.dk

www.denkreativeplatform.dk

Søren Hansen

Email: sh@plan.aau.dk