

The Experimental Organization

Experiments as a method to transform educational organizations

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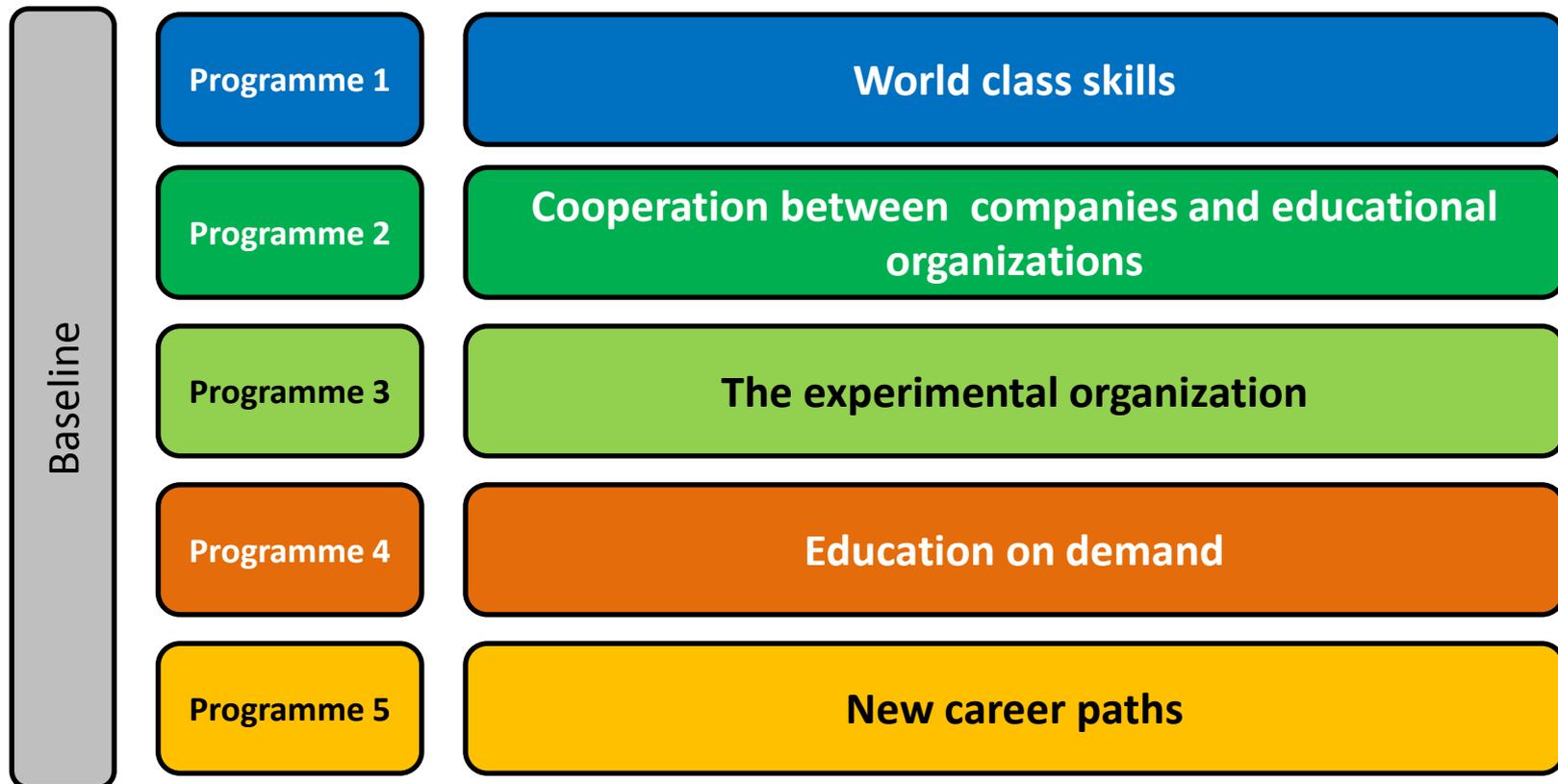
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The identity of Educational Experimental Lab

Mission:

- To establish an experimental setting based on knowledge by:
 - Creating a unique experimental environment – VET to Ph.D.
 - Connecting educational practice, development and research to ensure knowledge that works in new ways
 - Developing new structures within the organization
 - Creating sustainable and meaningful partnerships – between different VET-institutions and between educations and employers
 - Providing conditions for sustainable transformations that make VETs able to address the present challenges and ensure that the educations are future-proof

Educational Experimental Lab is structured in 5 programmes



Activities in the Lab so far

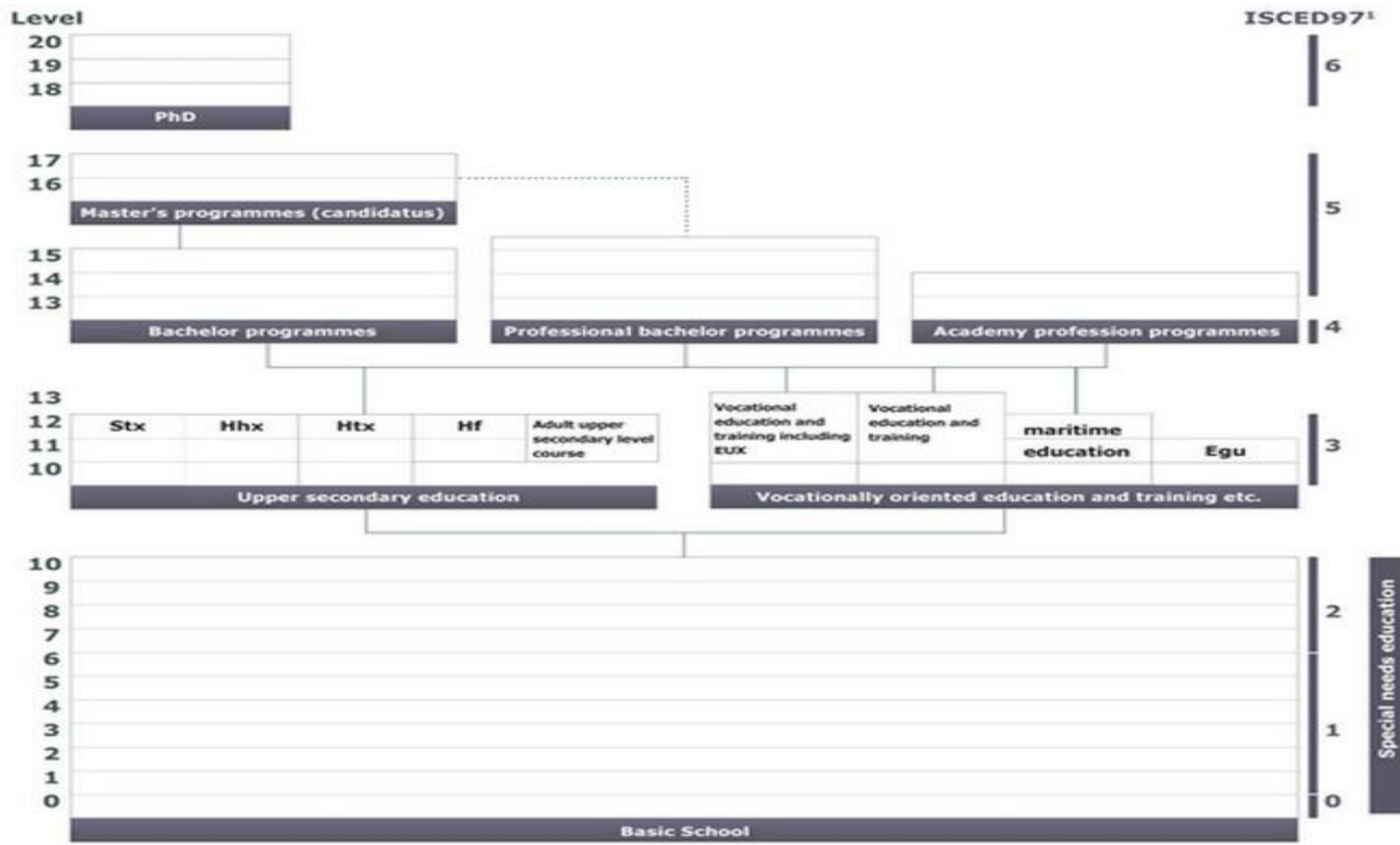
Capacity-building in participating organizations:

- Education of 60 local ambassadors who are trained to expand and promote the experimental thinking in their local organizations.
- Education and development of leadership in organizations with a focus on anthropological leadership and leadership based on knowledge rather than personal opinions where the task is the center of attention.
- Educational workshops within the programmes with participation by teachers and student counselors. Presentation of the newest scientific research and focus on the participants educational experiments.

Initiated experiments

- 58 experiments are happening now in our partner organizations across the 5 programmes.
- The experiments are spread across the 4 stages of an experiment and so far none of them have reached stage 4.
- Our wish is to have fewer experiments that lasts over a longer period of time and have more range. For example by collaboration between 2 or 3 organizations

The divided Danish system – VET as ‘low status’



Present challenges i relation to VET

- Declining status of VET. Today only 19 % of a youth cohort applies for a vocational youth education. A decline of 11 % in ten year.
- Similarly, a survey revealed that only 7 % of parents would advise their child to enroll in a vocational education.
- The picture is the same with the vocational oriented higher education.
Only 25 % of the students graduating from upper secondary education plan to apply for a vocational oriented HE (though many of them end up doing it).
- One reason is the 'missing link' between VET and higher educations.
To be admitted at a HE one must have a upper secondary education. Only 10 % of the VET-educated continues in further education.
- Increasing problems with absence and lack of motivation among students.
72% of the VET-teachers experiences that the students are less motivated now than 5 years ago.
- Dropout rate is increasing – despite massive effort to approach it.
The latest figures show that 50% of the admitted students from VET end up dropping out.
- The economical crises causes conjunctural problems at the labour market
Lack of approximately 10.000 apprenticeships
Between 20 and 36 % of graduates with a VET is unemployed after six months

Why do we need an educational lab?

We need to transform the VET educations.

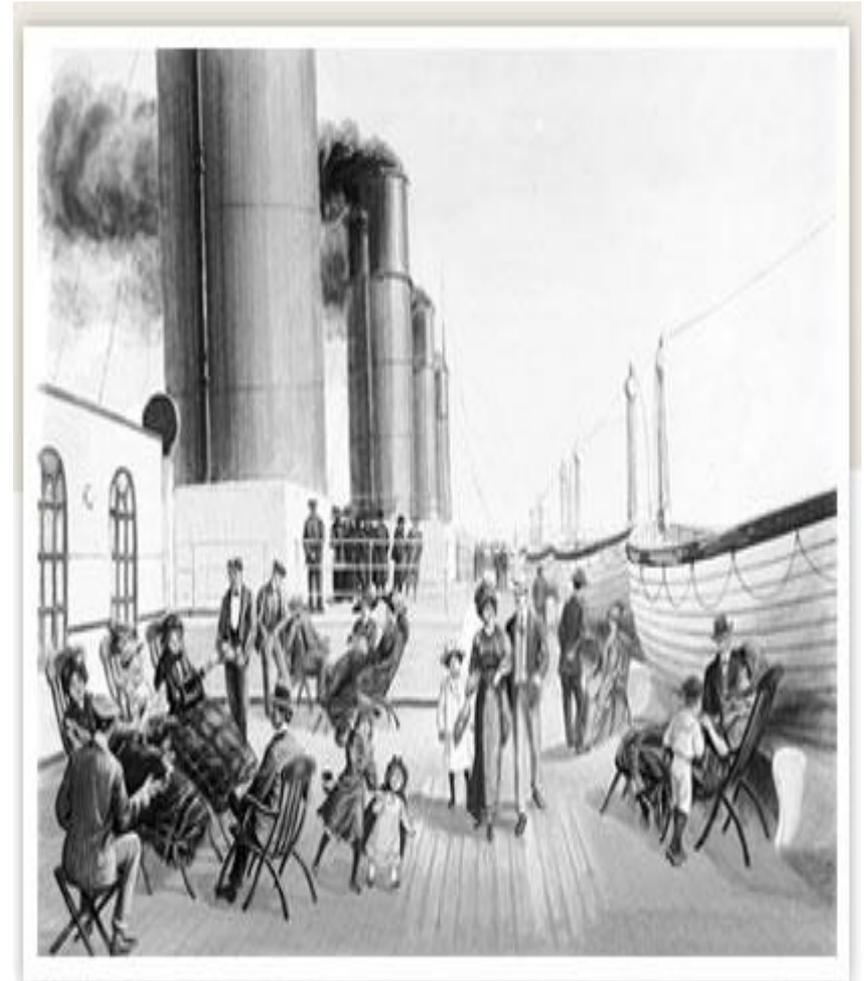
Despite many years massive research effort and numerous development projects the present issues continues and seems to be reinforced.

Survey among the partner institutions shows that between 50 % and 70 % of the teachers expresses that haven't changed their daily practice as a result of participating i a develeopment project.

Swedish school development expert Hans Renman:

We keep rearranging the deck chairs.

Even though the need for tranformations is massive we continue to practice schooling as usual, vocation as usual, internship as usual.



Changing or 'rearranging the deck chair'

Rearranging	Changing
Rooted in the existing conditions	Trying out new initiatives – challenging existing conditions
Tacit knowledge	Explicit knowledge, creating new knowledge
Unclear definition of development and change	Explicit change theory
Continues existing understandings, routines and roles (reproduce culture)	Creates new understandings, routines and role – rethink culture
'Schooling as usual'	New educational thinking - develop new understandings of what education should be

Transformative research – a third research approach

Poststructuralism

Polyphonic organization, settings for power- and discourse-plays.
Change as deconstruction and destabilization.

Challenge: Lack of meaning, lack of coherence, paralysis

Evidence theory, post-positivism

Objective knowledge proving the effect of an intervention.
Change as something that can be measured and proofed, leading to universal knowledge.

Challenge: linear understanding of change, not taking the context into account, leading to very general knowledge

Transformative research – action research 2.0

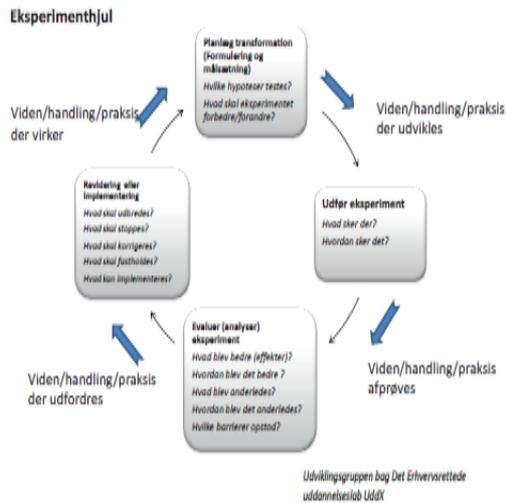
Ravn 2010: Research that have the explicit ambition to change and improve social conditions.

Research should be based on practical problems - problems that are problems for someone and needs solutions! And similarly measured on the practical effects - what were improved / changed?

The researcher as a constructor, actively contributing to a reshaping of a societal institutions practice.

Change as co-production.

Experimental methods as co-production



The experimental wheel

En forandringsteori til uddannelsessektoren
Den eksperimenterende tilgang – fra tænkning til konkrete metoder.

Metodeguide

Det erhvervsrettede uddannelseslaboratorium
august 2013

Prototype 1



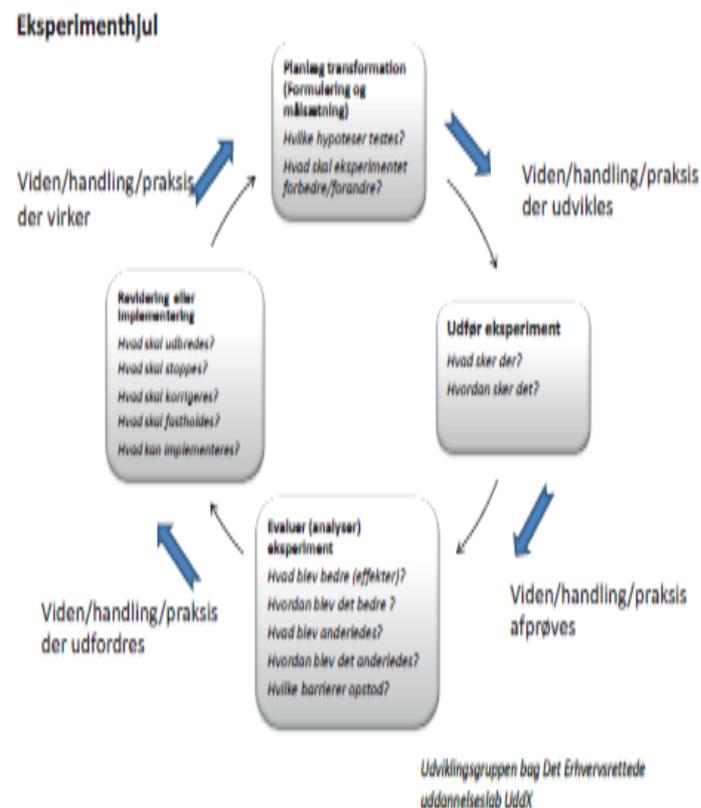
A theory of change



New educational thinking - and practice

Experimental mindset

- Reinvent the tradition of school experiments.
- Systematic testing new practice in a defined process - both in time and organizationally.
- Experimenting is about being able to evaluate and investigate one's own practice. What happens if we do something different? What changes and improvements does it cause? How can we document and analyze what is happening? How can we do more of what works?
- Also it is based on the latest knowledge about current challenges in relation to VET – and what can be done to improve and innovate practice.
- Educational experiment implies a shift from the individual participant's interests in common objects (problems or challenges) to be met - and joint exploration of new methods and solutions.



Model of an educational experiment

- 1 - Planning and design of the experiment
- What is the challenge?
 - Which hypotheses will be tested?
 - What do we expect will be improved by the experiment?
 - How will the experiment be evaluated?

Knowledge/action/practice are developed

- 2 - Carry out the experiment
- What happens?
 - How does it happen?

Knowledge/action/practice are tested

- 3 - Evaluation of the experiment
- What was the effects of the experiment?
 - What became different than expected?
 - What surprises did the experiment give?
 - What were the challenges in the experiment?

Knowledge/action/practice are challenged

- 4 - Review or implementing the results of the experiment
- What should be stopped?
 - What should be done in an other way?
 - What should be as it is?
 - What can be increased or tried in another way or setting?
 - What can be implemented?

Knowledge/action/practice are working

Educational experiments

- Educational experiments intended as a method and a driver for making a culture of change in relation to make an improvement of the educational practice.
- Therefore, in all educational experiments a theory of change is embedded, meant as a theory on what to do in order to change practice.

Creating experimental organizations

“It is an important objective that educational institutions themselves will be able to renew and change their practices and core services and the tasks they are responsible for solving. However, this requires new ways of working, new skills and new roles - both for teachers, head teachers and pupils / students”.

(The Methodguide p. 12)

- Change requires breaking with existing routines and 'practice theory' - and the development of new ones.
- Requires 'transformative learning processes', in which it is possible to develop new understandings of 'good practice'
- Also requires change leadership. Including the competence to translate - paving the way - stay focused - personify the new - making sense (why?)

An exemplary experiment

An experiment with knowledge-based communities within programme 3 - the experimental organization:

- A knowledge-based community consists of teachers and leaders across professional boundaries within an educational organization. This breaks a tradition where a specific profession plans and executes the educational practice for that specific profession. Also it breaks the traditions for hierarchical organizations and build up new form of knowlegde based organization.
- The experiment takes place on a vocational school and consists of 6 knowledge-based communities with a transverse organization.
- The experiment is not completed and is characterized as a long-term experiment
- The basis for participation in the knowledge-based communities is knowledge rather than professional background and position in the organization.
- Hypothesis: By developing and leading education in knowledge-based communities rather than in professional groups, we can brake down specific professional monopoly and create a new professional competence that's directed to the current challenges of the educational system.
- Results:
 - The 6 knowledge-based communities have been established and have produced a plan of process and terms of reference
 - The knowledge-based communities work with strategic development based on a selected challenges
 - The knowledge-based communities have challenged the specific professional understanding and the leadership that follows such an understanding in order to increase new thinking
 - Future experiments have to be based on already existing knowledge and new experiment are to be integrated in the existing practice.

Working with change – how far have we come?

- We have built capacity. All partner institutions have built up experimental organizations and have had their managers and staff on training.
- The majority of the partner institutions wants to continue their experimental organizations for laboratory
- Common language and common methods have brought new perspective and new understandings of practice.
- The experiments have led to new forms of cooperation. For example, knowledge-based communities where employees 'across hierarchies' working together to conduct experiments.
- The institutions pay a greater attention to external challenges - and draw on new knowledge in relation to solving them.
- Hard to identify experimental zones - where is the experiments physically located?
- Many of the initiated experiments has been a continuation of previous projects. Creates a need for more 'radical' experiments that test new approaches within new organizational frameworks.
- Very few students are involved. Creates a need to think about students as co-creators who also have to be engage and transform their role.
- Similarly, the laboratory at several institutions is experienced at the 'management's project'.
- This creates a need to link the experiments to professional development in relation to the teacher profession.
- Many experiences difficulties working knowledge-based. There sees the documentation-process as a 'monitoring instrument' and management tool. Important to develop tools that can make documentation meaningful and link it to the teachers work.

Partner Organisations

VET-schools

TEC

CPH WEST

KTS

SOSU C

University College

Metropol

Academi of Higher Education

KEA

University

DTU

Transverse Institutions

HRU

Rigshospitalet

Partners of Science and Knowledge

NCE

DEA

CEFU

UCC

Educational Guidance

UU København

Experiments so far

The partner organizations have completed 31 experiments:

- 13 in Programme 1
 - Motivation and talent
 - Vocational innovation
 - Profession and professionalism in new ways
- 7 in Programme 2
 - New form of cooperation between educational organizations and companies
 - Practice based learning in new ways
- 7 in Programme 3
 - Quality and leadership with educational practice as a stepping stone
 - New forms of leadership and cooperation
- 4 Programme 5
 - New forms of educational guidance
 - New forms of collaboration with companies

Present experiments

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