

GLOBAL AND LOCAL ISSUES IN EDUCATION: WHAT FINLAND CAN OFFER TO ASIAN COUNTRIES?

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The presentation of Mr. Harri Lappalainen will be interactive. In the presentation we enhance our understanding and knowledge and seek for answers and solutions for topics that help us to modernize higher education.

When discussing about Finnish educational system it is essential to understand some basics about Finland as a country:

Finland vs. Indonesia: two quite different countries...

- **population**
- **size**
- **geopolitical location**
- **religion**
- **competitiveness**

Finland is very well known country when speaking about the quality of education. High rankings in global assessments and surveys have been reached thanks to systematic and perseverant investments to education in all levels. This success is still rather new phenomenon: in 1970's Finland was below an average in overall welfare as well as in education. What has happened in 40 years to make this success possible?

Finnish education system

- **no dead ends**
- **no tuition fees**
- **PISA success**
- **Efficiency.**

The undeniable crown in the Finnish education system is a teacher. There are several dimensions in underlining the importance of our teachers: all teachers, including even kindergarten teachers in Finland have Masters Degree, either in some special substance or in education. Teacher is much appreciated profession and it makes also quite difficult for young adults to get a study place to become a teacher: however, at the same time this competition guarantees the quality of students and forthcoming teachers.

At the level of University of Applied Sciences teachers have previous experience from businesses, not only from academic world. Nothing is stable and teachers have to be modernized. Their role is changing and moving towards mentor and facilitator of learning. Teacher is not anymore just "pouring wisdom" into pupils and students heads but making effective learning possible.

Finnish education system gains welfare for the whole society: e.g. Finland has a low level in corruption; Finland was just nominated as a best

country for mothers; public social security system works well and takes care of all individuals; Finland is supporting new companies in many ways in starting up their businesses. Global challenges demand global solutions and active international cooperation in education is a key for better global welfare.

Innovations

- **radical vs. incremental**
- **various types; e.g. technical, environmental, process, social**

We have chosen the definition that is stated in the Finnish Nation Innovation Strategy: Innovation is Utilized Knowledge-Based Competitive Advantage.

In the Global Innovation Index 2013 (made by The University of Cornell, INSEAD and WIPO) Finland's ranking is 6th. Finland was number one in several indicators: e.g. political stability, freedom of media, efficiency of administration and human capital.

Finnish Innovations, e.g.

- **Nokia**
- **Ms Viking Grace**
- **Kone elevators**
- **Game technology solutions**
- **Finnish social innovations**

Rapidly developing societies, environmental change and increasingly dynamic economies with new and often unforeseen needs from business side call for ever-increasing abilities for experts and employees of companies to produce innovations. Educational system in its every level must respond to this call. Especially higher education institutions (HEIs) should focus more on producing direct societal benefits using their expertise and capabilities to innovate. Luckily we can say that Finnish higher education sector has modernized during last 10 years. Finnish universities are not a separated entity from the outer world; vice-versa they have nowadays a holistic and active approach to education. Education is moving fast from behaviorism towards sociocultural approaches, where students' work and learning in universities is carried out in close cooperation with other players of the society.

Innovation pedagogy as a learning approach

Turku University of Applied Sciences TUAS has founded a learning approach called **Innovation pedagogy** which has already raised lots of international interest. Innovation pedagogy as a

learning approach is a new way to link the everyday work in HEIs to the needs coming from society and to accelerate versatile innovation processes as well as to produce innovation competences to the students. Active stakeholder cooperation means in practice that our students start to cooperate with companies from the very beginning of their studies. Students work as part of their studies in multidisciplinary teams and implement assignments coming from companies, public sector organizations and NGOs. Working with these real cases enhance several in demand competences of our students and gain direct added value also to companies, public sector organizations and NGOs. TUAS have developed several concrete educational methods that are adoptable also in Asia.

Innovation competencies

- ***What kinds of competences are needed when participating in diverse innovation processes?***

We in TUAS have divided innovation competencies into three main categories:

- Individual innovation competencies; e.g. problem solving and analytical thinking skills
- Interpersonal innovation competencies; e.g. group working skills
- Networking innovation competencies; e.g. making and utilizing connections outside of one's own circle of acquaintances

All these three categories are highly appreciated by employers and therefore we should – in addition to discipline-related contents – focus more actively in increasing these competencies in all higher education programs.

Selected methods in Turku University of Applied Sciences TUAS to enhance innovation competencies, e.g.

- ***Project Hatchery***
- ***Research Hatchery***

In Europe, thanks to active pedagogical development, there have been developed several functioning teaching and learning methods which combine fruitfully all main elements of the knowledge triangle: education, research and innovation. All these elements are in the focus of the Innovation Pedagogy learning approach.

We strongly believe that the most convincing way to enhance innovation competencies is hands-on approach. All Faculties of TUAS are interdisciplinary. It makes our university an excellent platform to boost students' innovation competencies.

One of the methods for applying and carrying out education according to the principles of innovation pedagogy is a method called hatchery work where the fundamentals are real life assignments, peer counselling and working in cross-

disciplinary groups. There are several different types of hatcheries. In the Project hatchery participants are first year University students aiming to learn e.g. basics of project work, enhance presentation and interactivity skills and begin to create networks needed in working life. To summarize learning outcomes of project hatcheries, students start to enhance their innovation competencies. Project hatchery operates 4 months and during that period they are obligated to plan, implement, report and present their work. Every hatchery is mentored by a teacher (each teacher has 3-4 hatcheries to guide) and tutored by an upper grade student. The role of student tutors is significant in every-day guidance and also in mental support. As a reward student tutors get credit units and a testimonial for their work.

Compared to Project hatchery, Research hatchery is more substance-oriented education method and targeted mainly to upper grade students. Several main principles and cornerstones are still the same in all hatchery methods. All hatcheries get an assignment – based on existing real need – either from companies, other working life organizations or from our university's RDI (Research, Development and Innovation) projects. In addition to learning outcomes of bachelor's degree students, the origins of assignments get real added value.

How to assess the enhancement of innovation competences?

- ***INCIDE barometer – new tool for assessment***

Traditionally it has been challenging to assess learning outcomes, which are not related to certain disciplines or subjects. There are only very limited number of reliable tools to assess e.g. innovation competencies.

TUAS – with its three European partners: Karel de Grote Hogeschool (Belgium), Universitat Politècnica de València (Spain), Hochschule für Angewandte Wissenschaften Hamburg (Germany) - has resealed a tool to measure changes in students' innovation competencies and therefore show the added value of selected teaching and learning methods and processes. The Finnish version of the tool has been validated after piloting it in four Finnish Universities of Applied Sciences.

The new tool, the Innovation Competencies Development Barometer (INCIDE barometer), takes along all main stakeholders to the evaluation process; students will make self-evaluation, co-students carry out peer evaluation and teachers are responsible for expert level analysis. INCIDE barometer is already in active use in all Universities that have been involved in its' development process. It has also been taken into use in Indonesian BINUS University.