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# NEW LEARNING ENVIRONMENTS FOR TRAINING OF CREATIVE PROFESSIONALS

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- Interdisciplinarity
- Arts, business, tech
- Crossing borders

## Need for new learning environments

Inspired by the following thoughts “What if education were less about acquiring skills and knowledge and more about cultivating the dispositions and habits of mind that students will need for a lifetime learning, problem solving and decision making? What if education were less concerned with end-of-year exam and more concerned with who students become as a result of their schooling? What if we viewed smartness as a goal that students can work toward rather than as something they either have or don’t have?” (Ritchard 2002)<sup>1</sup>, we’d like to share some experiences regarding the new learning environments. Common to them is the desired transition from habit school centric teaching to learner and learning centric approach.

All over the world universities for vocational higher education are challenged to educate knowledge workers, since their graduates are expected to function in a knowledge-based society. The development and the economy in such a society requires that workers are equipped with the right competences. Those competencies include attitudes, skills and knowledge. These, so called 21st Century Skills, are closely related to the needs of emerging models of economic and social development than with those of the past century, which were more suited to an industrial mode of production. (Ananiadou and Claro 2009)<sup>2</sup>.

## Defining environments for learning 21th century skills

One example of an environment purposed for training 21th Century skills is a Living lab. Dr. Petra Cremers (2016b)<sup>3</sup> characterised in her work few design principles for a Living lab. These principles can be considered to be important

<sup>1</sup> Ritchhart, R. 2002. Intellectual character: What it is, why it matters, and how to get it. John Wiley & Sons.

<sup>2</sup> Ananiadou, K. and Claro, M. 2009. 21st Century Skills and competences for new millennium learners in OECD countries. OECD.

<sup>3</sup> Cremers, P. H. M. (2016, Feb 10). Guidebook Living Labs: Tool for designing and evaluating living labs at the interface between school and workplace. Hanzehogeschool Groningen.  
[https://research.hanze.nl/ws/portafiles/portal/15946927/Guidebook\\_Living\\_Labs\\_21\\_1\\_2016.pdf](https://research.hanze.nl/ws/portafiles/portal/15946927/Guidebook_Living_Labs_21_1_2016.pdf)

for every new learning environment, both for its participants and habits of working. Participants in such an environment can be students, lecturers and working is considered to be professional activities about which or by which knowledge is created. This might include researching, advising, designing, constructing, acting. The design principles for a Living lab are

- Fostering authenticity, meaning that learning environment (context, tasks, activities, roles, and communication) should reflect working practice, a professional working culture and organization.
- Creating a learning community, as within the community every member should experience a sense of belonging to it and every member of the community is a learner, each at their own level.
- Utilizing diversity, which should be built-in, valued and utilized both at team and organizational levels and in internal and external networks. Diversity can be associated to professional disciplines, age, cultural or social backgrounds.
- Interlinking of working and learning, by which participants learn by performing real life tasks that are supported by educational interventions. These interventions are attuned to the task and to the individual learner, and they interlink working and learning. Also teamworking and often project working is utilised.
- Facilitating reflexivity, where participants are assisted to learn by reflection on tasks and experiences as a person, team and organization. Critical events in the working activities are the starting point for reflection and learning.
- Enabling organization, where structure and culture supports the working process, knowledge creation and sharing at every level (individual, team, organization, society). In addition the hierarchy is supposed to be as low as possible.
- Enabling ecology, meaning the learning environment is attuned to its surroundings, which includes partner organizations and other stakeholders. Interaction between the learning environment and the surrounding stakeholders is appreciated for new knowledge creation.

All around the world more and more new learning environments for supporting 21st Century skills learning are built, since learning those skills is recognised to happen by these environments. The environments are typically hosted by universities, NGO's, start-up incubators or even private businesses. Cremers (2016a) conceptualised the learning environments for knowledge workers in higher and vocational education, which do not only include acquisition and utilisation of knowledge, but also include the co-creation of new knowledge across

disciplines, professions and perspectives (Cremers, 2016a)<sup>1</sup>. On the other hand Savander-Ranne, Lindfors, Lankinen, & Lintula (2013) divided the learning environments into three different categories; sustaining, renewing, and innovating learning environments. The sustaining learning environments include sufficient current practices, which however are not developing the learning environment. Within the renewing learning environments the developing factors are included in the practices. Thus, in the innovating learning environments, the existing practices are changed, which can be often seen by the changing target of the activity. (Savander-Ranne et al., 2013)<sup>2</sup>.

The transition from school centric teaching to learning, learner centric approach is also supported by the mental learning environment. The environments should support learning by creating an environment to pilot, by which preparing to explore, study, possibly fail and learn from it. Based on our experience the mental environment of the new learning environments should

- Foster participants skills to withstand uncertainty and ability to change/modify
  - 85/15 failing is best for the learning. (Wilson et al. 2019)<sup>3</sup>
- Establish and support a learning and sharing community
  - peer-group used for reflection
- Support creative change makers “Yes, we can”-mentality
  - connecting “rebels & pirates” to collaborate
- Offer leadership mentoring and business coaching for those in need
  - role of a coach, minimum lectures, learning by doing

## Examples of the physical environment

There are many examples from new learning environments. Following we’re presenting photos of different kinds of spaces from Kostamus, Espoo, Berlin and Nepal. Similar to these environments is their openness, low entry level, allowing creativity, low hierarchy and sense of a community. Usually the space can be easily modified or used by multiple purposes, it has a kitchen or kind of small kitchen, common lobby room for all.

One private owned co-working space in Kostamus, Russia. The owner of the cafe is renting co-working space for all, including cafe, tools, rooms for a monthly fee.

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<sup>1</sup> Cremers, P. H. M. (2016). Designing hybrid learning configurations at the interface between school and workplace. Wageningen: Wageningen University.

<sup>2</sup> Cremers, P. H. M. (2016). Designing hybrid learning configurations at the interface between school and workplace. Wageningen: Wageningen University.

<sup>3</sup> Wilson, R.C., Shenhav, A., Straccia, M. et al. The Eighty Five Percent Rule for optimal learning. Nat Commun 10, 4646 (2019).











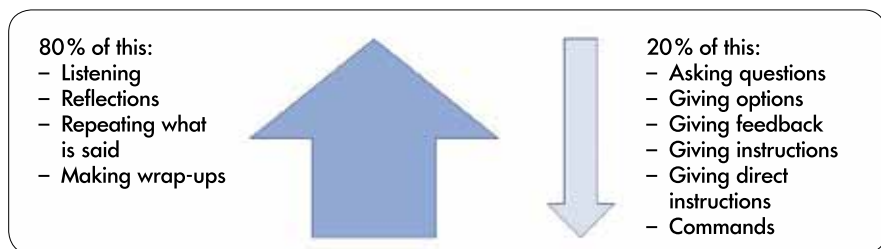




## Transition from teaching to coaching, case Terwa Academy

New learning environments require change to the role of the teachers involved in those. As learning environments are built to create a new kind of communication among its participants, also teachers need to adapt their communication, as well as their practices and ways of carrying out the education.

Teachers' acting as lecturers and as persons giving information and right answers is seriously challenged in new learning environments. Teachers, often called as coaches, should rather be available for students. Role of a coach is considered to be enabling students to grow by asking questions as well as, when needed, for encouraging towards a better path. Coaches should not give answers to problems, but allow students to find their own, and also new solutions. (Pakkala & Ström 2018<sup>1</sup>; Eklund, Lindholm & Salminen 2019<sup>2</sup>.) The role of the coach is to be as invisible as possible – but it can happen only when the team is working properly. The coach encourages students to use their imagination and to be creative in front of new problems and real working life cases. The picture below shows the ratio of time coaches should focus on listening to students and encourage them to make reflections instead of giving direct instructions and commands.



One example of a coaching enhanced new learning environment is Terwa Academy in Oulu University of Applied Sciences, Finland. Terwa Academy is a study program where one can learn about entrepreneurship by being one. In practice students learn business by establishing their company in teams and making projects for real customers, and earn money from it. In addition to their customer projects, the studies in Terwa Academy include literature from their discipline. Students are required to make summaries and reflections of them in formats of videos, podcasts, essays and similar. Their literature study experiences are shared and discussed in a regular learning sessions held by a dialogue circle, as in the picture below (Terwa-akatemia 2019<sup>3</sup>).

<sup>1</sup> Pakkala, K. & Ström, K. 2018. Ope valmentaa. Onnistu ja valmenna muitakin onnistumaan. Mäinosbuumi Oy.

<sup>2</sup> Eklund, A., Lindholm, T & Salminen, J. 2019. Taitava tiimivalmentaja. Miten saan tiimiflow'n virtaamaan?. Impact Oy.

<sup>3</sup> Terwa-akademy website: [oamk.fi/terwa-akatemia](https://oamk.fi/terwa-akatemia)