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# 4. Pedagogy, ICT and creativity

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#### Goal

This workshop invited participants to reflect on their use of Information and Communication Technology (ICT) in different life contexts. In doing so, the workshop emphasized that some kind of flexibility is needed in ICT use, so that we need to renew and adapt our ICT practices to new contexts, challenges and opportunities. Such renewal and adaptation is likely to lead to increased creativity in professional work and other life contexts as well.

## Background

ICT has been an integral part of education for decades. ICT can be approached e.g. as a communication tool, a cognitive tool or as a resource

visualization, collaborative knowledge building and personalized learning (Kukkonen & Vesisenaho 2000). Further, in applying ICT in education, there are three factors that contribute to each other: visualization, collaborative knowledge building and personalized learning (Kaisto, Hämäläinen&-



Effective and impactful use of technology at the University of Jyväskylä Teacher Training School

Järvelä 2007). Because of the rapid development of technology, learning ICT skills demands continuous self-direction, responsibility, motivation, self-reliance and problem solving skills. However, for a teacher it is

pedagogical awareness to fully understand the effective (and impactful) use of technology

not enough to have only ICT skills: they also need pedagogical awareness to fully understand the effective (and impactful) use of technology.

According to Vesisenaho and Dillon (2013), the development of ICT use in education can be divided into four phases:

- 1. Import: taking a technology, product or idea and placing it into another environment without considering the change of context.
- **2.** Transfer: taking a technology and reusing it in another environment where the context is appropriate.
- **3.** Apply: transferring a technology to a new environment and applying it to different areas in new contexts.
- **4.** Contextualise: transferring and applying a technology so that it takes into account and supports the environment in old and new contexts.

According to Vesisenaho (et al., 2017) and Dillon (et al., 2013), the process of creative use of ICT begins with a development of (or coming up with) ideas (creativity, improvisation), which then can be further elaborated by the use of technology for linking ideas or people (capturing, filtering, consolidating, transferring). In the third stage, the further developed ideas are applied in different platforms or in new contexts (localization, contextualization, personalization).

### Workshop activities

The workshop included two group discussions to enhance reflection on personal ICT use. We recommend using these questions in your self-reflective diary and/or in your peer discussions (see Vesisenaho & Dillon, 2013).

First, consider your personal pathway and present ICT use:

- How have I learned and developed my ICT skills?
- → How do I use ICT in my leisure time?
- → How do I use ICT in my professional work?



Then think about past and future changes in your ICT use:

- → Have I applied ICT in my work in a personalized (own) way?
- → Have I modified the way I originally used ICT in my work / teaching?
- → What would be an innovative (next generation) way I could use ICT in education?

The modules in this Handbook also help you think about the various relevant contexts which would offer opportunities for creative applications of ICT for pedagogical purposes.

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