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The Developers of Digital Health and Welfare Services

The healthcare systems in Europe are facing new challenges such as ageing of the population, increased budgetary pressure and thereby there is a need for cost-efficient solutions. e and mHealth could be one way to tackle these challenges by contributing to a more patient-focused healthcare. (European Commission, 2014, 2015a). Eysenbach defines eHealth as follows (2001): “e-health is an emerging field in the intersection of medical informatics, public health and business, referring to health services and information delivered or enhanced through the Internet and related technologies. In a broader sense, the term characterizes not only a technical development, but also a state-of-mind, a way of thinking, an attitude, and a commitment for networked, global thinking, to improve health care locally, regionally, and worldwide by using information and communication technology.”

As the Digital Agenda for Europe states, challenges can be found in insufficient skills and motivation of the health care personnel to take part in the digital world (European Commission, 2015b). Research shows that continuous evaluation of information and competence is needed in health care education. The minimum competence requirements needed for health care professionals in the future are: the informatics knowledge base, informatics tools adoption and nursing and health information integration management. (Rajalahti, 2014)

The project “The Developer of Digital Health and Welfare Services” is a multi-cultural and multi-professional project that aims to create a new curriculum giving future professionals skills in developing improved eHealth and welfare services for citizens. The project is founded by Central Baltic. The partners are from Estonia, Latvia and Finland.

The project starts by evaluating the current curriculums to find the current knowledge about developing eHealth and welfare services.

In the second phase the project creates the new 30 ECTS curriculum. The curriculum is inspired by the recommendations of the International Medical Informatics Association (Mantas et al, 2010, 2011), The TIGER Initiative (2009) and the article Designing a Modern IT Curriculum (Westerlund & Pulkki, 2015). Also the European Computer Driving License is defining skills all professionals´ already should have on a bachelor lever (EDCL, 2015).

Research shows that continuous evaluation of information and competence is needed in... Click to Tweet

The content of the new curriculum is based on measured competency and the latest multi-professional knowledge about the needs of the digital society. (eHealth Action Plan 2012, STM 2014, Finnish Nursing Association 2016.) In the study unit, future professionals ( in IT, economics, social- and health care) are developing their current competencies to match the needs of digital health care and welfare, taking into account the professional qualifications defined in EQF levels 5-6 as well as cultural differences in the Central Baltic region (Recommendation of the EU, 2008).

The curriculum will be based on the Learning by Developing (LbD) pedagogical model, developed in Laurea University of Applied Sciences (UAS) (Raij, 2007) In the LbD model, the goal is to bring about real changes in the world and new ways to act (Taatila & Raij, 2012). Combining theoretical and practical knowledge (Nonaka & Takeuchi, 1995) in the UAS´s projects means having...
knowledge in practice, of practice and for practice, and generating new innovations (Raij, 2007). Students, teachers, working life professionals and customers work together in real working life related research and development projects. The outcomes are innovations and new partner’s competences with regional actors. (Ahonen, Meristö, Ranta & Tuohimaa, 2014.)

The partners arrange a study unit piloting the curriculum. The students’ eHealth related competency is measured at the beginning and after the pilot. The curriculum, which is built on an e-learning platform, is piloted in Finnish (2), Estonian and Latvian VET/UAS programmes. The students (20×4) in the pilot get excellent competence and skills in designing and creating eHealth services in an international co-operation. Webinars and seminars support the studies. Training periods are also possible. The themes of the development projects are ageing citizens, cross-border workers, young people at risk of becoming excluded and people with chronic diseases. The Structure of DeDiWe project is described in the figure one.

The figure 1. The Structure of Pilot.

It is important for the students to learn current core competencies and skills of their vocational subjects, but it is equally important to be a competent innovator and developer.

The new 30 ECTS study module is built around three main themes of 5 ECTS each; the client, the environment and the development of digital activities. These 15 ECTS can then be combined with 15 ECTS thesis or project work with working life partners.

The project not only creates a new curriculum but also gives the students the possibilities to implement development projects that are useful for the citizens. The core curriculum is the same for all students, which allows for a variety of professionals to work together. The level of the learning outcomes, as the starting level in the different modules, partly differ between professionals and to secure the possibility for all to develop the learning assignments are designed considering this. Each partner has its own set of students, but since they work in the same e-learning environment, cooperation is easy, regardless of country or organization.
The knowledge is viewed in three different ways: in, of and for practice. The new curriculum promotes multi-professional studying with the LbD – model, which gives students excellent opportunities to learn in real working life projects – and innovate new services to eHealth and welfare services.

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**Lähteet:**


