Implementation of Transformative Digital Learning in Doctoral Program of Pedagogical Science in Latvia,

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Transformatīvā digitālā mācīšanās: akcenti ieviešanai doktora studijās (DocTDLL projekts)

Considerations
for implementation of transformative digital learning
in doctoral program 'Pedagogy"

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Just to remind:

The goal of the project is to <u>create new pedagogical knowledge and technological know-how</u> in the field of transformative digital learning (TDL) in higher education in Latvia…; the further development of the doctoral study program "Pedagogy"…; development of scientific, academic and practical capacity of researchers and educators…

The expected outcome of the project – theoretical background and relevant didactic materials for a doctoral study program/curriculum should be based on the understanding (to be discussed) that relevant for a doctoral program **transformative digital learning** is based on the paradigm of students' **learning by doing** towards appropriate academic and research **competence/experience acquisition** assisted by educators'/advisers' **transformational teaching**; therefore, an institutionalized educational process/curriculum is designed on the general assumptions of tertiary **pedagogy/adult education** which are specified by the particular **objectives of doctoral education.**

Enabling terms that prompt the essentialities of the doctoral program/curriculum:

1. ***Digital learning*** - <u>any type</u> of learning that is accompanied by technology or by instructional practice that makes effective use of technology; implementation, therefore, means an appropriately inserted into the structure of the pedagogical process/curriculum a chosen type of learning coupled with the chosen/suggested/ accessible digital tools;

2. ***Transformational teaching*** – educator's assistance based on the belief that instructors/advisers can promote meaningful change in students' development;

3. ***Transformative learning*** - a theory and model of adult learning/teaching-learning that utilizes disorienting dilemmas to <u>challenge doctor students' thinking and mind-set</u> (critical, creative), as well as experience – a type of learning similar to research;

4. ***Activity theories*** for doctoral students' digital transformative learning by doing – a fundamental concept to understand and facilitate/promote human development;

5. ***Competence-*** oriented curricula – a targeted current curricula that is based on the philosophy/understanding of the essence of *competence* ; therefore it determines 'what', 'why' and 'how' of the educational process;

6. ***Capability-*** oriented learning – making use of one's competence and external/environmental possibilities in learning and doing to create new possibilities of development and practices; a broad normative framework for the evaluation and assessment of individual well-being and social/pedagogical arrangements appropriate for individual and social transformations.

7. ***Pedagogy –*** an educational science of formal/institutional education, theoretical background of teaching-learning/curricula in practice that defines specific features of the components of this process and their mutual relations to make the process/curriculum a system that facilitates doctor students' success and ability of initiating/conducting a transformative digital teaching-learning.

Tertiary pedagogy – a branch of the general science of pedagogy that covers the essential features of general pedagogy and the specific features of a tertiary process with its sub-branch of institutionalized doctoral education; these when further developed by theoretical and empirical

studies of this project and, therefore, specified, constitute *fundamentals of constructing* a program/curriculum for doctoral transformative digital studies (academic, practical and research).

Essential considerations to be discussed (just defined, without providing detailed theoretical background by now) first <u>to understand the fundamental changes</u> of programs/curricula, including the doctoral ones, then to implement understanding in new programs/curricula:

1.<u>The dilemma between "what to teach" and "how to teach"</u> becomes topical for creating a relevant doctoral curriculum because the existing traditional/orthodoxy one comes into conflict with nowadays technical progress and cultural diversity. Alongside comes into a conflict the consideration of the universities that knowledge is a value within, as well as the way it is transmitted to the students, also doctoral students.

> <u>Change thinking of knowledge in education</u> from a value within to a value of using: 'where, when, what and **how' knowledge can be applied** to improve practices, as well as to create new knowledge, understanding, skills, attitudes.

2.A balance between prioritized components of the doctoral program/ curricula should be specified: academic, research, practice – all of these are important, therefore, an appropriate way of their integration should be found. We can hypothesize that a quality doctoral program in pedagogy must be based on <u>digital transformative research</u> (a type of learning that couples new knowledge learning with its usage by using digital technologies) that attracts and further develops academic knowledge, as well as practical skills and experiential learning.

> Digital transformative studies must be covered by and in <u>research as a joint venture of educators and doctor students</u>; critical and creative discussions should make the background activity in doctoral studies.

3.<u>Cultural diversity of communities coupled with the digital devices</u> available for learning and speedy splash of accessible information, be it theoretical/academic or experiential/practical, brings together two essential realities: (a) the European educational traditions that have been developed within the framework of the historically stable and limited by mainly ethnic cultures and (b) open borders accompanied by participating numbers of

immigrants and distinguishing of other groups with their sense of dignity, freedom, identity and rights. These groups hold different values, background of digital skills, and vision on their future.

This research highlights different attitudes to the digital tools by educators and students, and challenges, therefore, assistance for educators when creating a doctoral program.

4.Naive understanding of 'alternative curriculum', 'flexible curriculum', 'individualized teaching', 'computer-assisted' learning or even 'machine learning' (computer programs that can access data and use it learn for themselves) will never bring to learning without learning - there will always be a dilemma of sharing functions between students' autonomous learning and external agents in building curricula of institutionalized processes. Pedagogical process/education is a field of action/activities. Crucially limited and mediated by orthodox curriculum recognition of a learners' *subject position* (Freire, Leontyev, Engeström…) restricts his/her ability of critical looking at the world that results in under-developed ability of autonomous learning and responsible attitude to a process of meaningful knowledge-building in action and reflection.

In multicultural or otherwise heterogeneous learning communities doctoral academic studies and research should be based on dialogues and discussions to encounter the reality of the world, others, self, as well as dilemmas, contradictions and diversified ways of their solutions. Activity theories and learners' subject position should be considered a powerful instrument of emancipation in an institutionalized process.

5.Educators by holding the responsibility of changing the priorities from transmitting knowledge to handing on to the next generation the knowledge (Young, 2013) and know-how, as well as other cultural values discovered and elaborated by earlier generations, in the digital age develops student's understanding of the essence of the crucial changes brought about by the digital age into the teacher's mission and everyday job.

Suggesting and choosing means/tools that enable doctor students building/creating new knowledge and practically effective know-how: doctoral research should change the accents of priorities from those of learning or academic component to investigation of real

problems leading to transforming institutionalized process when the academic component of a program/curriculum is covered on the background of joint, team-based research of educators and students.

6. Dominating subject-based doctoral program/curriculum with prescriptions and external regulations is a sign of a knowledge transmitting institution. Certainly, knowledge and subject-related content will remain, at least as a sign of the current reality of education when becoming that of the digital age. The priority of the study content should become alternatives, dilemmas and cross-sciences or cross-discipline problems to enable the doctoral students identify and investigate crucial for educational transformation problems, define research objects and aims relevant for PhD level.

> The priority aim of a doctoral program/curriculum must be a complex capability (to be defined and described) of conducting a transformative digital research leading further to educators' appropriate understanding of the decisive role of their proficiency that is reached by step-by-step and targeted development started (a) at the level of competence (well-performed job obligations), (b) continued at the mastery level to reach (c) expert's or excellence quality – the level that enables development of the institution.

7. Educators'/scientific advisers' further academic development should lead to changes in thinking, breaking the frames of common sense to understand the changed and changing priorities of the program/ curricula (Pinar, 2004), theories of knowledge and learning, discoveries of neurosciences and developing neuro-pedagogy. These happen alongside with the demands of all areas of human life for well-qualified, critical and creative professionals who hold broad knowledge horizons, based on an academic education and research skills and abilities of conducting doctoral digital transformational learning of knowledge creating – that which is not discovered yet and which nobody knows how this will be discovered even in the nearest future.

> Educators' academic, practical and research job also experiences transformations of the priorities: these from the technical following the time, sequence etc. prescribed by the curricula/programs move the accent to the doctoral students' educational achievements.

Educators' and teachers' preparation moves accents from training to education.

8.Wide access to information and growing possibilities of option confront learners, be them school pupils or university doctoral students, to the theories of acceptance, adjustment and adaptation; changing information into significant knowledge and understanding that is necessary to transform one's experience and practice; challenge changing the background theories of learning for the critical ones. These invite doctor students to doubt, questioning and radical transformation of the process.

Neither tertiary pedagogy nor didactics have lost their importance – didactic should be changed into a powerful educators' tool to provide doctor students with an appropriate assistance in completing their PhD program and developing appropriate qualities (mentioned above). Special attention should be paid to <u>transforming the amount of information into knowledge, understanding and usage through one's job, life activities, contexts, values</u>.

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