The Development of Entrepreneurship as a Core Competence in Interdisciplinary Study Environment: First Achievements, Hindrances and Perspectives

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The development of students' entrepreneurship has become one of the contemporary educational topicalities due to its crucial significance as a success factor needed for personal fulfilment, active citizenship, social cohesion, employability and competitiveness. However very often formal education lacks the experience of teaching and learning for real life and therefore students mainly perceive studies as means for passing exams and getting certificates, considering schooling as something remote from the needs of real life. Many students during their school years aren't aware how the theoretical knowledge and skills acquired in school may be applied in practice for solving real life problems, getting better oriented in a constantly changing life, identifying and realizing opportunities offered by it. When students get mostly theorized education, they don't get prepared to face the challenges of real life; this leads them to become "job seekers" but not "job creators". The solution of this problem by pedagogic means encompasses three aspects: the research of the concept of entrepreneurship; the elaboration and trying out of an entrepreneurship promoting methodology; the working out and implementation of an appropriate research methodology for monitoring, ensuring feedback and improving the process of entrepreneurship development.

The paper presents how these three aspects were accomplished in the University of Latvia with the development of research methodology together with ASEM network 5 partners from the Universiti Kebangsaan Malaysia in the last phase of this research stage. The elaboration of the methodology for developing entrepreneurship in the study process serves as a ground for considering it as a core competence in the way this concept was discussed and finalized at “ASEM LLL Core Competences” meeting in Riga in September 2011. The methodology of developing entrepreneurship in study process is based on four pillars: holistic teaching and learning, interdisciplinarity, experiential learning by doing and framework of attributes of entrepreneurship promoting study process. This interdisciplinary teaching and learning entrepreneurship promoting methodology was tried out within implemented participatory action research with teachers and students of five secondary schools of Latvia within the ESF project “The development of teachers' professional competence within interdisciplinary study environment for linking learning to real life and promoting students' entrepreneurship”. Both teachers and students' reflections were registered in electronic learning diaries; the incorporation of diaries as learning and assessment vehicles into the interdisciplinary study process provided the benefit of growth of reflection, creative writing, critical thinking and meta-cognitive processes of teachers and students' learning (Gleaves, et al., 2008) which enabled to update the methodology on the systematic basis.
The first results of the research give evidence of the appropriateness of: the holistic interdisciplinary entrepreneurship promoting teaching and learning methodology for developing teachers and students’ entrepreneurship in study process as a core competence and electronic diaries as research and learning means.

**Keywords:** entrepreneurship development, core competence, interdisciplinarity, holistic education, electronic learning diaries

F2: A Method of “Guided Autobiography” for Enrichment of Core Competence

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It is requested for human beings to have three layers of human abilities which are 1) capability for completion of projects; 2) competency for control of each basic concrete abilities; and 3) many kinds of concrete basic abilities.

Among these three human abilities, function of competency is a kind of junction which connect concrete basic abilities and capability. By putting basic abilities in practical use, competency can try to complete his/her mission of life, occupation, family relationship and management of local community under concrete conditioned situation of him/her.

Competency is a kind of black box or function into which he/she put new conditions and from which he/she can get the best result for the mission.

In some extent every human being has his/her own function of competency. And it is requested for him/her to enrich his/her competency and to enjoy his/her better life. However no one can buy the enrichment process by money. Everybody have to try to enrich it by him/herself 1) by enrichment of daily practical life; 2) by learning social standard of skills and knowledge; and 3) by creating his/her own individual and local skills and knowledge.

As a learning method for fulfilment of third process, it is popular among ordinary people to write autobiography, family history, community history etc.

As to autobiography, styles of producing are different depending on their life stages. In case of youth one of the ways is focusing on “something heavy on his/her mind recently”. The process of the way is as follows;

At the first a leader of study group give young learners five questions that are 1) what is your concernment recently?; 2) When have you started to mind the concernment?; 3) In what context do you mind it?; 4) What is your ideal solution of the problem?; and 5) Where can you find signs for the solution?

Secondly each students of the study group follows their leader’s indications as follows: 1) Each of them fill up an answer sheet for the five question and 2) share each sheet in a small group by giving comments, questions and answers. Then 3) every student can start to describe his/her own short story reflecting the small group discussion. 4) When description become a few pages the leader interviews every students one by one to help each student be aware of his/her context of the concern and find a scheme for his/her inquiry. 5) Each learner implements own inquiry by interview, reading documents such as diary and newspaper and making his/her own chronological table. After repeating the 2-5 cycle a few times, the student combine autobiographies of the persons and produce a handmade book of them to share the contents and process of the study.

In this successive process of the work young people can have experience of some psychological processes. And in the result of these experiences, they can enrich their competency with their self-confidence and mutual reliability.

F3: Senior Citizens as Volunteers: New Resources for Exploration of Analytical Competence as Core Competence through Mathematics Learning and Identity

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Senior citizens are rich sources of knowledge and experience, which they acquired through their courses of lives. It is our hypothesis, that older volunteers can offer new and unique perspectives to analytical competences development. As a starting point we are making an explorative study into the relationship between pensioners’ performances in mathematics and their beliefs and positioning as doers of mathematics.

In order to investigate these issues sequential explorative research is conducted. The conducted qualitative-quantitative research included the following stages: 1) a questionnaire and (semi-)structured interviews for qualitative data collection (statements); 2) primary and secondary qualitative and quantitative data processing; 3) data analysis and interpretation. Informants will be pensioners involved in voluntary work in Latvia, Denmark and Lithuania.

Some results are presented from the ongoing project on pensioners’ statements about their beliefs and positioning as doers of mathematics related to the information gathered about their voluntary work, the pensioners’ education and working life, and the marks received on mathematical performance in school and education.

The results will be discussed in relation to previous results from studies on young students in RN5, carried out with similar research design. The questionnaire and (semi-)structured interviews for qualitative data prompted respondents to reflect and express their view on mathematical thinking and problem solving, and for young students we found big variations in how they positioned themselves mathematically and towards teachers and other students.

The demographic changes towards fewer young people and more elder people are in Western countries often seen as a threat and challenge for economy and welfare development. Knowledge and experience of senior citizens may as well be seen as opportunities for societies to be further explored as life conditions for pensioners differ extensively across countries and regions. Besides opportunities for theoretical development on core competences we also see opportunities for new ways of practicing core competences between generations as part of learning unlimited.