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Digital opportunities for student's motivational enhancement

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Abstract

Young people, who are the fundamental asset of our economies and societies across the world, face a real and increasing difficulties in finding a decent job with each day. Three additional merging factors are worsening the youth employment crisis even further, causing challenges while transiting to decent jobs, namely (i) numbers of discouraged youth, in other words, young people, who are neither in education nor in employment or training (NEETs) are increasing, (ii) unemployment among university graduates of tertiary education in general are rising and (iii) potential NEET group students, especially in the 1st year, who, apart from reduced study fees, require extra motivation and moral support from educators. The study aim - to find the e-learning and conventional learning as the optimal ratio for 1st year students to increase motivation. Research methods – during two academic years (2013/2014th and 2014/2015th.) the first year students of the course "Entrepreneurship (Distance Learning e-course)" were tested about quality of this course using different research methods. Students had been tested by: 1) survey about the course on "Entrepreneurship (Distance Learning e-course)" assessment; 2) psychologist M.Lusher color test, based on the method of projection individual's emotional state of the diagnosis; 3) the degree of risk appetite according to Schubert's method of success; 4) motivation after T.Elersa methods, failure avoidance motivation in correlation with T.Elersa method; 5) survey about optimal proportion between traditional and e-learning studies. Paper contains analyses of these results.

Keywords: youth; digital options; NEET group; e-learning; quality of education; teacher's competence.

1. Introduction

21st century higher education paradigm is based on the teacher-student mutual cooperation and direct-to-student. Unfortunately Latvian for the sixth consecutive year, the number of students experiencing a downward trend. 2012/2013 academic year, together studied 94,474 students at the Latvian higher education institutions. Compared to last year the number of students has decreased by 6% (Progress report on the Latvian National Reform Programme in the context of implementation Strategy "Europe 2020")[2]. The number of students has decreased over the last four years due to demographic factors (demographic pit), as well as the economic crisis and the general economic emigration, suggesting a decrease in access to higher education for economic reasons.

It is important to note that Latvian National Action Plan aims by 2020 to ensure 34-36% of the population (30-34 age group) in higher education. Ministry of Education and Science is responsible for the following key policies and measures with higher education population increase:

- modernization of higher education;
- the modernization of material and technical resources and resource efficiency in higher education institutions;
- higher education equal access opportunities;
- studies and research quality improvement activities;
- attraction of foreign students[1]

European Commission document 'Opening up education: innovative teaching and learning for all through new technologies and open educational resources'/COM/2013/0654/ highlights that today's students want to personalized treatment, greater cooperation and better links between formal and non-formal education, which can largely be implemented by school learning using digital technologies. In addition, in this respect, the European Union (hereinafter EU) risk falling further behind other regions of the world. United States and some Asian countries are investing in ICT strategies to transform education and training. These countries are transforming their education systems, modernize and make it international, achieving remarkable results in schools and universities in access to education and the cost of teaching practice and the teaching institutions globally renowned reputation or brand promotion. An example would be that a large portion of digital content provided by market participants from outside Europe, including educational institutions that offer training programs on a global scale through massive open online courses (hereinafter - the MOOC)[2].

In addition to increasing access to education, greater use of new technologies and open educational resources that can help reduce the costs of educational institutions and students, particularly disadvantaged groups. Thus MOOC should use the opportunity to:

- studies in universities embarked on, but unfortunately due to higher earning leavers students who work all day;
- school leavers NEET group of students (NEET - not in employment, education or training - a person who is not employed and is not involved in the educational process)[2] ;
- school prospective NEET group, especially in the 1st year, students who have no cost-cutting is a great need for motivation and moral support from educators.

All three target groups linked by a common need to deal with the problem - as soon as possible to gain experience or to provide educational opportunities to live and work stably. Are there any initiatives to remedy this situation, or so far they have been a success? Of course, there are also extreme making choices - the opportunity to migrate, but if it helps in the long run?

2013 summer EU higher education modernization high-level working group came up with 16 recommendations of teaching and learning to improve the quality of higher education in universities of the EU modernization of high-level working group teaching and learning and improve the quality of the recommended use of new technologies. Latvian institutions of higher education new technologies are used in various stages of development, but with university and government support for the EU is trying to help teachers to develop their teaching skills and online teaching and learning forms that have become available right now, in the digital era.

Higher education institutions should be encouraged, supported and also take into account the students' feedback, if it could help detect problems in time teaching and learning environment, and quickly and efficiently to improve

the environment. As noted by the majority of respondents from industry, higher education already takes into account student feedback on teachers' work, for example, through surveys. Other recommendation requires that training programs should be developed and monitored by teaching staff, students, university graduates and labour market participants of discussing and cooperating. New teaching and learning methods in need of skills required facilities to help students find a job. Recommendation to improve the skills of university teachers to teach their subjects, to learn new teaching methods, forms and implement an interdisciplinary approach to the development of students' innovative thinking entrepreneur, organized by each higher education institution in Latvian. Each teacher develops individual study methods of teaching.

The goal of the paper is to make 1st year Higher Educational institutions students' problem analysis in order to understand their motivation to engage in distance learning process.

Research methods - a study was carried out in the lectures and final exam of course "Business (Distance Learning e-course)" during the 1st year students (respondents) participating on a voluntary basis. The following Empirical data extraction method where used:

- a survey about course on "Entrepreneurship (Distance Learning e-course)" assessment, developed by D.Ratniece;
- psychologist M.Lüscher color test based on the method of projection of the individual psycho-emotional diagnosis[6];
- methods for diagnostics of the degree of risk preparedness (Schubert), motivation to success (methods of diagnostics of the person on the motivation for success T.Elersa) and motivation to avoiding failures (methods of diagnostics of the person on the motivation for avoiding of failures T. Elersa)[6].

2. Latvian students' desire to use social networks to the learning process - a good incentive to carry out such research in universities

"Samsung's future school" student survey, which took place in February 2014, found that 75% of Latvian students in favor of using social networks to communicate not only with friends but also with teachers and learning useful information. This survey was conducted teacher training programs in digital "Samsung School Future" program[7]. Online "Draugiem.lv" filled in a 713 pupils aged 12 to 18 years.

The most common social network "Facebook", "Twitter", "Draugiem.lv" and another networks see the benefits of training of students in situations where for various reasons have impeded school hours and follow up remotely. In this way students can quickly learn the latest study material, get advice, teacher comments and information about homework. Also, students would like to build a virtual environment of like-minded groups, discussions and "brainstorming", discussing the subject matter and the common class entertainment. Almost a quarter of or 36 % of the students assess the social networks as a good platform to look for learning useful reading material , view videos, photos and listen to audio reflections , or " podcasts ". A similar number of respondents in the social networks choose to play educational computer games, participate in after-school counseling and contact with different fields of expertise. However, only 13 % of the students themselves are interested in building a digital learning materials.

Learning digital skills teachers can diversify teaching methods and to develop creative, innovative and curiosity-enhancing training materials. The students are interesting to perform tasks online and to operate in an unusual environment. Social networks help to motivate students to learn, and that is also good for data selection training, formulation of evaluation and opinion. The challenge of teachers, however, is a task of social networking evaluation system developing, otherwise the pupils' interest fades. Although students will be happy to communicate with teachers, social networks and one-third choose to follow his teacher, but the majority of students (67%) would not want teachers to keep track of them. About a quarter of students surveyed believe that social networks have their private space, not intended for teachers and students do not want them to reveal their thoughts and views on personal issues.

Some years ago, U.S. researchers conducted a study on the basis of the results and concluded that the best way to build a digital technology-based learning environment [4]. Methods, which integrate digital technology may vary depending on the types of technologies available, teachers 'expectations of pupils' needs and academic research purposes. In a study designed to assess the fifth and eighth grade students' reading skills, it was discovered that some

students of literary and linguistic skills performance has improved, thanks to the enhanced use of digital technology[5].

3. Practical evaluation method and results

From October till December of academy year 2013/2014th   and academy year 2014/2015th author as the Assistant of Riga Technical University Professor A.Kapenieks, who provided the course "Business (Distance Learning e -course)", supplementing the lecture content, presenting her study entitled "Use of Social microblogging to motivate young people (NEETS) to participate in distance education" to 1st year students. From October till December the course "Business (Distance Learning e -course)" was taken within two home works - "Business Ideas searches on the Internet" and "Your business idea ". The course was taken through Riga Technical Universities e-learning environment ORTUS. Author evaluated all home works in the e-learning environment ORTUS, added comments, encourage and motivate students to prepare business plans better till the final exam at the end of the semester. Each comment was prepared according to the content analysis. The assessment of the student homework was done by author concerning the seven criteria : 1) actuality or viability of idea; 2) technological solution or how to enforce; 3) marketing - promotion of goods or services in the market; 4) competition; 5) financial security (eg ,planned revenues , expenses, financial support for the company's start-up and ongoing development (bank loan, other resources etc.). 6) the company's ability to realize the idea ; 7) the potential risks .

Here are some author's comments, contained in the RTU ORTUS e-learning environment after assessment of two home works of 130 students:
"It is a good idea and a good understanding of LV local economic problems and possible solutions".
"The idea is great, your involvement and knowledge is felt. Description well-structured and well founded. Good luck to implement plans! If you intend to implement the idea in Latvia urge timely improvement Latvian language. Based on your good vision I could not be left uncorrected Latvian spelling errors. I hope it will be a good support for your business plan. "
„Cannot be assessed, possibly innovative creative ideas, due to the stingy information. Please summon one's strength and prepare the business plan more seriously!"
"The idea is very innovative, as long as it has not been known before. Before two years one high school student team participated to the Junior Achievement Latvia competition with this great business idea. This student team received a favourable assessment. As the company has fared forth, is not known. Have a good luck for you too!"
"You have already submitted almost a complete business plan! Good luck in implementing the ideas! Note that this region is largely popular among hunters organizations, which could be your potential customers will stay for a reasonable price."
"Excellent idea in people's everyday needs, whilst saving time and ensuring a truly preferred diet, finding the opportunity to learn about its health. Very wisely points out the potential risks. Just do not use the word "tablet" of the Latvian language in the text, as there may be a misunderstanding. Consistently sticking to the same wording in Latvian. Have a nice time with this innovation to conquer the world, painting business image of Latvia! "

The author's comments were made in positive, supportive and motivational manner supporting each student. During this period, RTU ORTUS e-learning environment could well be traced to the original falls for 1st year students. About one-third did more first homework than the second homework.

In order to establish whether and what are the factors hindering the continuing education of students, in the middle of the first semester of academy year 2013/2014th , the author carried out the above 1st year student testing under a Swiss psychologist M.Lücher colour test based on the method of projection of the individual psycho-emotional diagnosis. Before testing of student, the author visited the lectures "Social psychology course" of associate professor O.Ņikiforovs in Baltic International Academy for the design and preparation of test forms[6].

The Lüscher color test is a psychological test invented by Dr. Max Lüscher in Basel, Switzerland. Max Lüscher believed that sensory perception of color is objective and universally shared by all, but that color preferences are subjective, and that this distinction allows subjective states to be objectively measured by using test colors.
Lüscher believed that because the color selections are guided in an unconscious manner, they reveal the person as they really are, not as they perceive themselves or would like to be perceived.[6]

He believed that personality traits could be identified based on one's choice of color. Therefore, subjects who select identical color combinations have similar personalities. In order to measure this, he conducted a test in which

subjects we shown 8 different colored cards and asked to place them in order of preference. On the other hand each color position in the color line are analyzed. In this case, the first position of color down human goals and aspirations, but at last - the repressed needs and impulses. Test data results was sent to each student personally. After the collection of RTU's color test data results it can be concluded that this test is necessary for the first year students to enhance motivation. Then, in time to determine the appropriate educational support the need for change in the learning process, balancing the traditional and e-learning form the volume to students that they can be customized according to the psycho-emotional condition moment.

4. Young people motivation to engage in distance learning process

Methods for diagnostics of the degree of risk preparedness (Schubert), motivation to success (methods of diagnostics of the person on the motivation for success T.Elersa) and motivation to avoiding failures (methods of diagnostics of the person on the motivation for avoiding of failures T. Elersa) have been tested for all students three times in the course in 2014/2015th academic year: at the beginning, in the middle of course and at the end. There was correlation between risk level preparedness and course evaluation at the beginning 0,734, at the middle 0,633 and at the end 0,654. Coefficient decreasing and after raising characterizes that students in the beginning are higher motivated than in the middle of the course.

Many respondents indicate the success of the course learning objective and self-critically evaluated in the course gain the skills and knowledge of the business plan. A number of contributions respondents highlight lectures existing friendly atmosphere, teacher through knowledge, positive attitude, responsiveness, interesting narrative. Table 1 and Table 2 of the study about the use of the form efficiency is reflected in the students' support for both traditional forms of study, as well as e-learning

Table 1. Student evaluation of the course Business (Distance Learning course) during the study assessing the effectiveness of the form (2013/2014th academic year)

Form of study	Low rating			Average rating				A high rating		
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Lecture				3	6	16	34	29	11	6
Discussion			2	3	5	13	18	35	21	8
Homework preparing and inserting in ORTUS system				1		7	11	19	35	15	17
teacher comments in ORTUS system				1	2	7	12	15	33	17	18
e-portfolio utility	9	5	6	3	10	16	26	16	10	4

Table 2. Student evaluation of the course Business (Distance Learning course) during the study assessing the effectiveness of the form (2014/2015th academic year)

Form of study	Low rating			Average rating				A high rating		
	1	*2*	*3*	*4*	*5*	*6*	*7*	*8*	*9*	*10*
Lecture	1	1	2	1	1	10	25	18	12	8
Discussion		1	1	1	1	3	13	24	18	17
Homework preparing and inserting in ORTUS system			1	3	4	5	15	20	15	16
teacher comments in ORTUS system	1		1	2	4	4	9	14	12	31
e-portfolio utility	1	2				4	17	24	12	19

Respondents very carefully study the two kinds of form of negative and positive aspects, since the completion of the training time personally felt, why learning requires direct contact, and situations in which use e-learning opportunities. This questionnaire respondents reflected comments for e-learning balance:
"E-learning is not a substitute for traditional studios at the moment, but they can be a good tool for learning."
"E-learning is useful because it can get a lecture files and, if never been to a lecture, it's a great help."
"E-learning suitable for cost reduction and to provide a compelling learning environment. Traditional forms necessary to maintain interest in the course. "

"Traditional forms of studies must be more, because the presence of asking the teacher can better understand the subject matter."
"E-learning should be available for all subjects, because it is very convenient."

Respondents indicate that e-learning and traditional forms of study needs to be balanced, because e-learning provides a great advantage to learn anywhere, anytime, and successful conduct of the study process and quality education are important, however, is the work of a teacher. Respondents' assessment of the teacher's three core competencies are generally as follows:

- responsive, intelligent, good contact with the students, generous, sociable, demanding adequate heights of their knowledge, understanding, the ability to listen, motivate, etc..;
- wise with the knowledge economy, the ability to lead discussions, the ability to appeal to, the ability to prepare a training plan, a comprehensive understanding of different areas, a teaching of the subject with interest, etc..;
- is a specialist in their field, with good experience in his field, a great life experience, knowledge of foreign experience, etc.

The first competency among the three main teacher or educator competencies respondents indicate positive character traits, suggesting the need for the learning process to develop positive communication. Only then, as the next teacher competence, mostly referred to the professional qualities and experience.

Very important information is provided by respondents concerning data about student previously graduated from an educational institution. To above examination in RTU marked an interesting trend. RTU electronics and telecommunications specialty is studying by number of the same educational institution graduates. So for a good and excellent education quality is preciously to mention a number of general secondary and secondary vocational educational establishments.

Author participated two times in the 1st year examination of students of three specialties. For that exam named "Commercial (Distance learning e-course) students prepared presentations. Author evaluated content of students' presentation and presentation skills. During the exam, the author conducted a survey of students, asking her to fill out a questionnaire prepared by the 5 key questions:

- the course rating knowledge gained professional context of assessing the low (by 1-3 points), moderate (4-7 points) or high (8-10 points), as well as adding a comment;
- during the course of studies assessing the effectiveness of a form 10-point rating system, by adding a comment;
- e-learning desired balance, indicating the relationship between traditional forms of study and e-learning forms, as well as adding a comment;
- the three main teacher competence, adding a comment;
- reference for a few details about yourself-gender, age, graduated educational institution.

During the exam are issued 107 questionnaires in 2013/2014th academic year, 69 questionnaires in 2013/2014th academic year. All questionnaires was filled by all respondents. Table 1 and Table 2 includes the students' evaluation of the course "Business Training Course (Distance Learning e-course).

4. Conclusions

Higher education paradigm is based on the teacher-student mutual cooperation, which urges for personalized treatment of students, greater cooperation and better links between formal and non-formal education, which can largely be implemented by school learning using digital technologies.

According to learning and teaching quality assessment made by students, it can be concluded that using of traditional forms and e-learning opportunities is necessary in similar proportions. Higher education institutions should take into account the students' feedback. They could help to detect problems in teaching and learning environment, as well as faster and more efficiently to improve the environment.

The determination of risk motivation degree is recommended for Higher Educational institutions' first-year students.

That is necessary to be able to predict the pedagogical support, balancing traditional and e-learning form of quantity.

1st year students of psycho-emotional condition for the determination of recommended M.Lücher colour test at the beginning of the study, to allow timely and appropriate educational support to identify the need for change and balance the traditional and e-learning form the amount that students could be customized according to their psycho-emotional state of necessity.

Educational institutions should be applied to traditional forms of study and e-learning, as an e-learning provides a great advantage to learn anywhere, anytime. Quality education play an important role in obtaining a teacher to direct contact with students.

Acknowledgement

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