Advances in Economics, Business and Management Research, volume 81
1st International Scientific Conference "Modern Management Trends and the Digital Economy: from Regional Development to Global Economic Growth" (MTDE 2019)

Online Education in Higher Education

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***Abstract* — The article deals with online learning in higher education. Modern society is geared to get people into Internet space: we communicate, make purchases and, of course, learn there. Digital technologies, on the one hand, expand our learning opportunities, but on the other hand, it is arising a question about quality and effectiveness using technologies regarding to particular goals of education. In the educational community there is no shared vision to the problem of the online educational model implementation in the educational process, the discussion about combining the traditional form of education and online education continue (some aspects of these discussions are investigated in the article). Different technologies are using in online learning; a gamification is one of them. The gamification is the gaming approaches using for non-gaming processes. It is very important to create a relevant methodological support for gamification using in education. In this case it enables solving many actual problems, such as developing practical skills, increasing motivation, etc. it is necessary to use online learning technologies in order to develop a modern educational system of a good quality.**

Keywords — online education, gamification, educational environment, digital environment, e-learning, higher education.

I. INTRODUCTION

As knowledge becomes a leading factor of production, as well as volume and quality of it become significant factors of inequality, the modern information society dictates new requirements to one of its most important social institutions, i.e. the institution of education. In a post-industrial society, the role of physical labour is reduced. On the contrary, the role of intellectual labour increases, thereby increasing the functional importance of education. Modern education is modernized responding to the challenges of society. The goals of it remain the same, but the methods, technics, and forms of receiving education are changing. One of the directions of this transformation is a strong development in online learning platforms on all levels including higher education. Online learning, like any innovation, is perceived as ambiguous by various participants within the educational process. Therefore, it is necessary to understand how online learning is perceived by students themselves to improve the efficiency of education.

II. METHODS

The researchers conducted a series of online surveys of full-time students at the State University of Management, in Moscow, Russia. They used questionnaires containing closed or semi-closed questions about the attitude of students towards the transition from the classical model of education, i. e. direct interaction between professors and students in the class, to online education, as well as about the characteristics essential for a world-class university.

III. RESULTS

389 respondents took part in the survey conducted for this research where their average age was 19 years old.

Comparing two systems of education, i. e. classical education model and online educational platforms, students prefer classical education to a greater extent. For instance, only 10% of respondents are “ready” or “rather willing” to pay the same amount for online education in case of the classical education, while 76% of respondents are “not ready” or “rather not ready” to pay for online learning platforms that are mimicking classical education models.

Among the advantages of classical education, respondents identify the following: “the possibility of direct contact with the teacher” - 37.8%; “the possibility of communication within the student group” – 26.7%; “the flexible forms of carrying out occupations in the form of training, business games and more “ – 20%. The advantages of using the online educational platforms include: “the ability to choose a convenient time for classes” – 31.4%; “the ability to repeatedly listen to educational material” – 27.2%; “the opportunity to receive education from any part of the world” – 22.1%.

According to the respondents, the level of knowledge obtained in the classical form of education will also be higher, than in online learning. This is evidenced by the distribution of answers to this question: “high level” – 10.5% of respondents for the classic form and 6.9% for online; “rather high” – 33.4% against 27.8%, respectively; “average” – 48.6% against 39.3%, respectively;” below average “ – 5.9% against 21.1%, respectively, and “low” – 1.5% and 4.9% respectively.

At the same time, the respondents are quite loyal to the possibility of combining two models of education: 52.4% of

respondents are ready to combine both types of education under the same pricing conditions; 37.3% of respondents would prefer the classical form of education to the online one, and 10.3% of respondents would prefer online education. If online education includes a membership in an international online platform, 82.3% of the respondents are for "a reasonable combination of international and Russian experience".

This point of view is indirectly confirmed by the results of a survey on students' perception of the characteristics of the world-class University (240 respondents participated in the survey – students from the first to the fourth year).

The first thing to note is the students' conviction in the need for online education for a world-class University. The majority of students (62.4%) identify the world-class University as an educational institution with a mixed educational model, which combines traditional and distance learning, while the traditional model of learning (direct interaction between teacher and student in lectures and seminars) as a characteristic of the world-class University is chosen by only 34.7% of respondents. It is interesting to note that the vast minority of respondents (1.7%) admits that a world-class University can completely switch to the online education system, which implies the implementation of a significant part of the disciplines in the online form.

Thus, at the moment, in our opinion, the student environment ambiguously assesses the transition to a model of online education.

The following factors should be considered according to the rectors of the leading Moscow universities (REU them. Plekhanov, Moscow State University, MIPT, etc.) [1]:

- It is too early to say that online learning is an independent environment, because learning involves not just the transfer of knowledge, but also an interaction with the student, the presence of a "feedback", which makes it possible to assess to which degree did student understand the material.
- All devices used for online education platforms must have AI (artificial intelligence) features as one of their technical requirements.
- The most favorable solution is a combination of the classical educational model and the online educational model.
- It is necessary to combine e-courses with localization: "with the electronic content expansion, local environments should appear where people communicate and adapt the global context to life in a particular territory. All this applies to the mission of universities: a university just supports these live projects on the ground. A number of universities will use e-courses with localization. For example, the lectures of the leading professors of the leading universities are presented in an electronic form, and a discussion, feedback, evaluation of achievements are already taking place locally, in the University [...] In the next decade the future are such hybrid systems" [1].
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- The online education system necessarily involves tutor support and feedback.

Thus, both in the opinion of the rectors' community and in the opinion of students, online education should be in harmony with the classical educational model.

At the same time, the HSE rector Yaroslav Kusminov has said, "Russia has a very good chance to quickly develop a system of online courses. It is not even about the institutional framework, but about the fact that we are a country with a great need for higher education and insufficient resources to meet this need. As a result, we have a lot of so-called pseudo-education and weak education… At the same time, no one doubts that full-time education at the University is irreplaceable" [2].

IV. Discussion

The ambiguity of assessments of online education is obvious. Indeed, online education today is at the stage of formation and, as any innovation, requires the adaptation within all educational process participants to new realities. Therefore, it makes sense to consider some online learning aspects in the context of forecasting its implementation prospects and the effectiveness of individual methods of this form of training.

Firstly, it is necessary to understand what is meant by online education in today's educational environment.

This is how Maria Gianelli identifies online education (or her interpretation of "e-learning"): "In General terms e-learning is a teaching and learning with a help of information technologies. To be more precise, e-learning involves the use of any electronic media to provide all types of teaching and learning-both Online and offline ...it is a process that generates knowledge and improves the quality of learning, while teaching material and teacher instructions are transmitted via the Internet" [3].

As one can see, this concept is quite broad, including many different technologies: "E-learning is implemented in a variety of forms: blogs, network encyclopedias, online discussion clubs, online games and simulators, online courses within the framework of learning management systems (Learning management systems, LMS), massive open online courses (moocs), applications for tablets and many others" [3].

Secondly, it is necessary to understand the directions in which online education should develop.

The following main trends of social development are affecting the modernization of the Institute of education in the direction of online learning [4]:

- The emergence and continuous strengthening of information as a factor of production.
- A constant increase in relevant knowledge.
- Complication of "navigation" in the information field.
- The ability to access almost any information (without significant material and time costs), including poor quality, unverified.
- The emergence of additional educational platforms, primarily virtual.
- The ability to build an individual educational program part using a variety of information formats, including interactive.
- Ability to get quick feedback from a large number of users.
- High probability of "surface" consumption of information, the so-termed "Internet surfing".
- The emergence of dependency on the virtual educational space.
- The teacher's role is modified: from the knowledge carrier role (sometimes the only possible) to the consultant role, "pilot" in the information field, and to some extent – the creator of this information field.
- Uncritical perception of information disseminated through the Internet.
- Mechanical and routine processing information is often reduced to a simple compilation of data as opposed to creative information processing of for specific purposes.
- The possibility of "data leakage", which threatens, among other things, copyright.
- Continuity of education due to the need for constant knowledge improvement. As a result, the expansion of the students and educators age range, as teachers are also required to constantly improve their knowledge.
- Lack of ethical behavior on the Internet.
- Expanding access to the educational environment to the widest possible users' range, including people with limited abilities.
- The complexity of providing methodological support of educational material as a result of the rapid introduction of this material into the network.
- Insufficient level of computer training of both students and trainees, affecting the quality of education.

Thirdly, when implementing online education, it is necessary to consider the specifics of teaching and learning within virtual communities, which are quite markedly different from traditional educational groups [3]:

- Virtual educational environment involves the use of social networks, email groups, chats, etc., which allows participants to be quite independent of the location, and often from the time of the lesson. Accordingly, it forms greater independence and a sense of personal responsibility for the result of their training.
- Virtual study group could have a much larger number of participants than a traditional study group, therefore, leads to the widening of social contacts and the formation of feelings of belonging toward a greater number of classmates.
- The isolation of participants from each other can encourage them to make additional effort to communicate with each other and maintain their status as a member of the study group. As a result, generated additional communicative competence, skills of team work in the context of mediation.
- The e-learning environment provides students with access to a variety of necessary resources, such as special online interest groups, subscription to e-journals, research using databases and digital archives, and communication via e-mail with classmates and teachers. The resources of the e-learning environment allow its users to create blogs, participate in online discussions and provide many other opportunities not available in the context of traditional teaching and learning.
- Working with digitized text increases the degree of freedom of students' action, because digital text is easy to change or use, which can lead to creative victories or abuse, not to mention that it is sustainable and environmental-friendly.
- The education system social structure, which has introduced in e-learning, is becoming less hierarchical, which is also associated with the text digitization. Indeed, using the traditional educational model, it is possible to re-access the material, therefore, facilitates the information exchange, increases the educational material availability, its openness to critical analysis. The material is easier to integrate into any form of educational projects, as a result of which knowledge is constantly changing and developing as a result of the digital texts deconstruction and reconstruction collective practice.

As mentioned above, online education involves, among other things, the simulation of certain actions, i.e. the replacement of reality with the virtual world. This is quite a useful opportunity, because it is not always possible to apply all the knowledge in a real organization or in real activity. These limitations arise, for example, due to the lack of sufficient experience of students and a sufficiently high error rate. Thus, virtual experience helps to form the necessary practical skills while minimizing risks. On the other hand, may be a "mismatch", the lack of further correlation between the real and virtual world [5].

This kind of technology in the education system is called gamification. "Gamification (gamification or gamesale) is the application of game approaches to non-game processes in order to attract consumers and increase their involvement in the solution of applied problems, use of products and services" [6]. According to the scientists [7], gamification is characterized by the following features:

- the use of game elements and game design techniques in non-game situations;
- the application of game design methods to non-game areas – business processes, social projects, training;
- the concept of the application of game principles and techniques in non-game activities (recruitment, training, promotion of healthy lifestyles);
- typical for computer games in software tools for non-gaming processes in order to attract users and consumers, increase their involvement in solving applied problems, use of products and services;
- video game technologies application in the process of performing non-game tasks.

Gamification is particularly relevant in modern education because the majority of today's students belong to a generation of Millennials (generation Y) often do not see themselves outside of digital technologies, “the game is characterized by such characteristics as improvisation, competitive spirit, emotional component and pleasure”, which stimulates the activation of individual capabilities and the realization of its creative potential [7].

But not only for the millennial generation, the game is an effective learning tool. As the researchers note “the game is characterized by such characteristics as improvisation, competitive spirit, emotional component and pleasure”, which stimulates the activation of individual capabilities and the realization of its creative potential [8].

The use of gamification in training allows to improve the following [9]:

- Communication skills development.
- Effective learning, as constant involvement in the gameplay contributes to long concentration and better memorization of large amounts of information.
- Practical knowledge, because the game is close to reality and allows you to get the necessary knowledge in practice, not in theory, as in a standard lecture.
- Motivation. Gamification helps to overcome such “crisis” moments in learning as ignoring test and written tasks, loss of interest and motivation.
- Quality testing and knowledge testing. Players allow deeper assessment of the capabilities and the participants’ potential.

Like any other educational method, gamification also has both supporters and opponents, "as the practice of game learning has outpaced researchers' understanding of its mechanisms and methods; knowledge of how to gamify activities according to the specifics of the educational context is still limited” [10].

Also, it becomes necessary to consider the individual characteristics of students according to the effects of the use of gamification mechanisms in the educational process [11], that makes it difficult to use gaming technologies as universal.

Gamification involves both online and offline applications, but thanks to online education can get a wider and technologically more advanced use.

V. Conclusion

Nowadays higher education is becoming increasingly popular both within of students and members of modern society as a whole. At the same time the pace of modern life, a constantly updating information stream and limited resources of universities inevitably raise a question of the need for an introduction of online education. But we need to understand that online education should be seen as a complement to traditional universities, not as a substitute for them, developing, testing and implementing various forms of reasonable combination of traditional and online forms of education.

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