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CONFERENCE PROCEEDINGS



Rethinking Learning in a Connected Age

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IDENTIFYING COMPETENCIES FOR TAKING ONLINE COURSES SUCCESSFULLY

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Abstract

Successful online learning if we look outside the didactics but in the field of personal development, from the anthropological bases, is in learner's identification as an active subject of the learning process. Activities that online learners perform correlate with the characteristics of the subjectness that researchers revealed: spotting one's own gaps in the educational environment and one's educational needs, satisfying them and enhancing one's competence by means of online learning (ability to change the environment and oneself inside that, reflexive way of life, realizing the principle of development), searching, selecting and studying online courses on one's own, supported first and foremost by the intrinsic motivation (initiative), ability to plan and analyze one's activity or inaction in the course, managing the requirements and the deadlines of the assignments, as well as readiness to accept the consequences of one's choice (responsibility).

Therefore, successful online learners (those who study on their own, cope with the tasks in time and in a proper way, achieve expected results) are characterized with such a subjectness which is based on a set of general-cultural and general-professional competencies that should be formed. To define the set of competencies which an online learner needs to become successful and study learners' attitude to them we have done a competency-based test (self-assessment questionnaire) in September - November, 2017. The respondents were 2060 learners from TSU online courses offered on 3 e-learning platforms (population is 80938).

Learners responded that the following general-cultural competencies are of much help for them in online learning: readiness to self-development, self-realization and using one's own creativity (69,7%), ability to organize and educate oneself (53,3%), ability to acquire new scientific and professional knowledge using modern educational and informational technologies (62,3%), as well as ability to imply means and methods of learning and self-control over one's intellectual development, increasing one's cultural level and professional competence (50,2%).

Among general-professional competencies the learners replied that the most useful competencies for online learning are computer skills for receiving, processing and managing information (79,5%), ability to work with the main retrieval query systems (60,2%), ability to search for scientific information, perform its critical analysis, to set research objectives and choosing appropriate methods and technologies to achieve them (59,3%), ability to critically analyze the learning process and training materials from the point of view of their effectiveness (54%) and ability to use polite manners in oral and written speech (21,9%). At the same time, the respondents define general-cultural competencies as more significant.

Therefore, the survey results proved our idea that successful online learning requires firstly, a set of general-cultural competences (those which are connected to the learner's personal development and his/ her subjectness in the learning process) and secondly, a set of general-professional competencies to be formed. This led us to the idea that assessing learner's level of the general-cultural competences we can predict his/ her future success in taking online courses.

Keywords: Online courses, learners, competency, subjectness.

1 INTRODUCTION

Defining the main general-cultural and general-professional competencies which determine learners' affective activity in studying on online courses is an up-to-date topic related to the concept of education as an open environment. The concept of such an activity implies that learner's personal participation in his or her own online learning (choosing a course, analyzing its content).

Education-driven change of the human and formation of his subjectness directs us to the anthropological approach, which is used further to explain learners' general-cultural competences in studying on online courses.

Therefore, in the current study we consider the problem of developing these learners competences not in the didactic context but through the personality prism, development of the person as a subject.

Research in the field of open education and open informational environment always appeal to formation of subjectness in learners. Questions of a subject in education and education of the subject become actual due to the opportunities to influence the content and organization of the learning process, choosing its diverse forms, setting aims and objectives of the education. In modern philosophic anthropology a definition of a subject is closely connected with his/her characteristic as an "agent", a person who changes the reality and reflecting on his/her own actions, as well as with the communication and collaboration process, which defines the process of the subjectness formation.

Representatives of the subject-activity approach who use anthropological basis strive for explaining a subject constituent of human activity. Today's research findings reveal basic principles of subjectness: consciousness, freedom of choice and responsibility for what is chosen, uniqueness. Psychologists who study subjectness dynamics during human development suggest crucial subject characteristics. Firstly, "ability to change environment and oneself in relation to it", secondly, "realizing development principle by means of one's life", thirdly, reflexive way of living in the objective reality which occurs in self-determination over condition-determination. The subject stands up by initiative and responsibility as activity forms. In general, a definition of a subject is tied to the meaning of a special personal trait connected with actively changing characteristics and abilities of a person.

Therefore, our focus on anthropological approach made it possible to explain a development of a subject position as the main criteria for learners effective studying on online courses.

Competency-based approach redefines subjectness development as a special educational result or general-cultural competency of the open education participant. A concept of competence in this case includes not only cognitive and operation-technology constituents, but motivational, ethical, social and behavioral. Therefore, it is always personality-marked by the traits of a particular person and appears to be personality-realized, included into his/her subjective experience. Competency, according to I.A. Zimn'aya, is defined as a complex personal education, which includes intellectual, emotional and ethical constituents, as a subject trait of a personality, a quality of his inner world correlated with a human successful activity in some particular field [6]. The extent to which a person may reflect on the meaning and value of one's own activity is the core of the personality traits of competency (as V.E. Klochko wrote) [8].

Personal, subject nature of a general-cultural competency for online course learners lets us to suggest its content as the following (that person subjectness characteristics are):

- readiness to self-development, self-realization and applying one's own creative potential;
- ability for self-management and self-education;
- ability to acquire new scientific and professional knowledge using modern education and information technologies;
- ability to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence.

General-professional competencies (meta-competencies) of online course learners are defined by learners objective and ability to use educational resource on their own and reveal the course potential (so that it may become a resource) for their education. It is related to the fact that a learner taking online courses may acquire those competencies, which enable them to act effectively not only within course and its materials but in relation to them, i.e. competencies which imply educational position in relation to the course content.

General-professional course-related competencies are the following:

- ability to creatively analyze learning materials regarding their effectiveness;
- ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them;
- ability to apply manners in oral and written speech.

2 METHODOLOGY

To analyze the effectiveness of taking online courses by means of quality and significance evaluation of the general-cultural and general-professional competencies we have explained before, a questionnaire has been developed. The survey (competency test) has been conducted online which is considered to be effective and possible form for self-assessment and reflection (see Annex 1).

Tomsk State University MOOC learners (massive open online courses) on Coursera, National platform of open education and TSU online education platform took part in the survey in September, 2017. Population: 80 938 people, one third of them are active MOOC learners. 1766 people replied to the survey questions, so that the sample may be considered representative.

The survey takes into consideration learners experience in taking online courses (question 2), aims at revealing learners opportunities, causes and abilities to choose courses (questions 1, 3, 4), learners interest in them (question 6), learners self-assessment of general-cultural and general-professional competences (questions 7, 8), the competencies significance for learners effective online learning (questions 9 and 10).

3 RESULTS

The survey results show that one third of the respondents takes online course for the first time, while about the same number of learners have studied one, two or three online courses. More than 27% of respondents have studied four or more courses. The reasons for taking an online course are (several variants were possible): an interesting topic (82% respondents), convenient form (48%), unique content that is not provided offline in their educational institutions (10,6%), recommendations (6%).

58% of learners are aware of the international practice of using online courses in the learning process, 45% learners know about typical situation in Russian HEIs, the rest of them are ignorant.

Learners are interested in the following opportunities that online courses provide: interesting courses (75%), solving one's own objectives in education (74,6%), credit shift of the online course results in their educational program (14%) and new online contacts (11%).

The vast majority of respondents (90%) haven't suggested their instructors to create open online courses which is a sign of the learners lack of initiative in the field of online learning. 63,5% of learners said that they are interested in online courses from any platform and 14% prefer their instructors' courses.

When asked about their level of general-cultural competences learners replied in the following way:

- 70% are ready for self-development, self-realization and using their creative potential
- 63% are able to acquire new scientific and professional knowledge using modern education and information technologies;
- 53% are able to self-manage and self-educate;
- 50% are able to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence.

As for the general-professional competencies, learners believe they:

- have skills in using computer as a tool for information acquisition, processing and management – 80%;
- are able to work with the main search engines – 60%;
- are able to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them – 60%;
- are able to critically analyze learning materials regarding their effectiveness – 55%;
- are able to apply manners in oral and written speech – 22%.

According to the learners replies the most significant competencies for them are:

- ability to self-manage and self-educate – 56%;
- ability to acquire new scientific and professional knowledge using modern education and information technologies – 54%;

- ability to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence – 53%;
- ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them – 50%;
- ability to critically analyze learning materials regarding their effectiveness – 35%;
- having skills in using computer as a tool for information acquisition, processing and management – 21%;
- ability to work with the main search engines – 17%;
- ability to apply manners in oral and written speech – 10%.

Majority of the respondents (52%) believe that they have all necessary competences for online learning and taking online courses is not difficult for them; 24% learners replied that they lack ability to self-manage and self-educate; 10% learners think that lack of ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them prevents them from effective study, 9% learners are of the opinion that good manners in oral and written speech could have helped them to study better.

27% of learners are taking online courses in the current moment, 27% have used them not less than four times in their education. This let us speak about a new stable orientation on such a form is being built (taking into account that learning process is still weak from the point of view of included online courses).

4 CONCLUSIONS

According to the self-assessment results majority of learners choose courses consciously (they are aware of the opportunities this form provides, apply courses to achieve their educational objectives and choose topics which seem interesting to them). This proves that their general-cultural competences are of a level which is high enough. This conclusion correlates with the fact that 50% of learners believe they have these competencies and think of them as significant ones.

Results let us claim that the following general-professional competencies have the highest priority: are able to critically analyze learning materials regarding their effectiveness and ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them.

The most significant competences for learners are: ability to acquire new scientific and professional knowledge using modern education and information technologies – 54%; ability to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence – 53%; ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them – 50%; are able to critically analyze learning process and learning materials regarding their effectiveness – 35%.

In conclusion we may say that the most significant competencies for online learners are general-cultural which relate to the personal, subject qualities.

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ANNEX. THE SURVEY.

Dear TSU MOOC learners!

MOOC – massive open online courses

Tomsk State University conducts a research in the field of using online courses. We will need your answers to this questionnaire for receiving results.

You need no more than 5 minutes to complete.

- 1 What is the reason for you to take an online course?
 - recommendations
 - an interesting topic
 - convenient form
 - unique content that is not provided offline in their educational institutions
 - other: _____
- 2 How many online courses have you completed?

It is the first online course, which I study

 - 1
 - 2
 - 3
 - From 4 to 10
 - More 10

- 3 Do you know about practice of using online courses in the international and national education?
 - yes, I am aware of the international practice of using online courses in the learning process
 - yes, I am aware of the national practice of using online courses in the learning process
 - I don't know anything
- 4 What opportunities of online courses are you interested in?
 - credit shift of the online course results in their educational program
 - solving one's own objectives in education
 - interesting courses
 - new online contacts
 - other: _____
- 5 Did you offer to the instructors to create open online courses for their discipline?
 - yes
 - no
- 6 You have an open online course from your instructor or/and a list of courses from any platform. What is more interesting for you?
 - instructors' courses
 - online courses from any platform
 - no answer
 - other: _____
- 7 What general-cultural competences do you possess that help you in online learning?
 - ready for self-development, self-realization and using their creative potential
 - ability to self-manage and self-educate
 - ability to acquire new scientific and professional knowledge using modern education and information technologies;
 - ability to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence.
 - other: _____
- 8 What general-professional competences do you possess that help you in online learning?
 - have skills in using computer as a tool for information acquisition, processing and management
 - ability to critically analyze learning materials regarding their effectiveness
 - ability to work with the main search engines
 - ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them
 - ability to apply manners in oral and written speech
 - other: _____
- 9 What competencies are the most important to you?
 - ability to self-manage and self-educate
 - ability to acquire new scientific and professional knowledge using modern education and information technologies
 - ability to use methods and means of learning, education and self-control of one's own intellectual development, of enhancing one's standard of culture and professional competence having skills in using computer as a tool for information acquisition, processing and management
 - ability to critically analyze the educational process and learning materials in terms of their effectiveness

- ability to work with the main search engines
- ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them
- ability to apply manners in oral and written speech
- other: _____

10 Lack of which competencies prevents you from effective study on the online course?

- ability to self-manage and self-educate
- ability to critically analyze learning process and learning materials concerning their effectiveness
- ability to search, critically analyze, systematize and generalize scientific information, to set objectives of the study and choose optimal methods and technologies of achieving them
- ability to apply manners in oral and written speech
- I have all the necessary competencies for taking online courses and I don't face difficulties taking them
- other: _____