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“Open Quest Study” Technology: Content and Interpretation

Leonid M. Popov^a, Pavel N. Ustin^{b*}, Ralina A. Valeeva^c

* Corresponding author: Pavel N. Ustin, pavust@mail.ru

^aKazan (Volga region) Federal University, Kremlyovskaya Str., 18, 420008, Kazan, Russia, Leonid.Popov@inbox.ru, +7(843)292-37-79

^bKazan (Volga region) Federal University, Kremlyovskaya Str., 18, 420008, Kazan, Russia, pavust@mail.ru, +7(843)292-37-79

^cKazan (Volga region) Federal University, Kremlyovskaya Str., 18, 420008, Kazan, Russia, valeeva1992@mail.ru, +7(843)292-37-79

Abstract

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The relevance of the investigated problem is caused by the need to improve the effectiveness of training students in higher education institutions through the development of educational technologies based on active learning methods. The purpose of the article is to reveal the mechanisms and content of the technology «Open quest study», which is directed to active assimilation of various competences by students through stimulation of their creative and cognitive abilities. The paper describes the technology of training, which is based on the idea of transition of student's cognitive activity, from reproductive to productive processes through the activation of their creative abilities. Theoretical base of the proposed technology consists of a synthesis of three ideas: the zones of proximal development, the student as a subject of educational activity, and constructivism in education. The given description of the technology, reveals the possibility of student's training through the stimulation of their cognitive and creative activity, describes the main stages and procedural elements of the use of the presented technology, shows the results of its testing, and describes the evaluation of its effectiveness. The practical significance of the work is determined by the developed and ready to use educational technology «Open quest study», including innovative means of teaching students in higher educational institutions.

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1. Introduction

The effectiveness of training is largely determined by the quality of the technologies used by teachers and lecturers in educational institutions. Constant changes in the public consciousness and in the living space, require continuous changes in the educational system, which plays a leading role in socialization and personality development. Therefore, developments in the creation, use, and



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improvement of educational technologies - is a process of constant searches and innovations, which has been, is and will be relevant, in society where there is an institute of training and education.

The paper proposes a description of the educational technology «Open quest study». The first theoretical basis of this technology includes the provisions of L.S. Vygotsky about zones of proximal development (Vygotsky, 2010). According to these provisions, the efficiency of development and learning can be enhanced through the organizing of conditions in which students become the subject of knowledge and are able to fully realize their potentials. Therefore, the educational environment of the high school is the zone of development, where the student as the subject of learning activities has the full opportunity to show his abilities and initiative.

The second theoretical basis of «Open quest study» technology includes the provisions that students in educational institutions should be primarily considered as subjects of educational activity - an approach that is quite common in the Russian psychological and pedagogical studies (Brushlinskii, 2003; Davydov, 1996 ; Ivoshina, & Shvareva, 2010; Kudryavtsev, & Urazlieva, 2002; Zimnyaya, 2004; Zuckerman, 1996, et al.). The main idea of this approach reflects the understanding of the student as an initiative and an active participant in the cognitive process. So he acts not as an object, but as a partner of lecture in the educational process. Such an understanding of the degree of participation of students in the educational process, is largely correlated with the Western tradition of interpretation of the educational process within the constructivism approach (Brooks, JG, & Brooks, MG, 1993; Dragonas et al, 2015;. Gergen, 2015; Kiraly , DA, 2000; Morrison, & Chorba, 2015; Tchoshanov, 2000, et al).

Thus, constructivism approach to education became the third basis of of the proposed technology «Open quest study». The key idea of constructivism in education, according to M. Tchoshanov is that knowledge can not be transferred to the student as a finished product. On the contrary, only the student can design and improve (increase) their knowledge through specific educational (pedagogical) conditions. Thus, every person throughout life constructs his own understanding of the world, including the framework of educational space (Tchoshanov, 2000)

Also, under the proposed technology, we are close to the positions, formulated by the editors of the monograph about the problem of constructivism in education (Dragonas et al., 2015). Authors say that the content of the knowledge obtained by students in educational systems, can not be universal. As an example, a study of M. Gergen, who proposed the method of teaching classical university courses for students as an interpretation of psychological knowledge through a diversity of psychological theories without focusing on any one as absolutely true, was taken. (Gergen, 2015). Accordingly, the basis for future educational practices should be technologies, directed on developing the readiness of students for constant life innovations, in other words, readiness for the creation of knowledge. Here, one of the variants is the method, presented by A. Morrison and K. Chorba, where the senior students transfer knowledge to students of junior courses (Morrison, & Chorba, 2015).

In this way, taking as a base modern educational paradigms and understanding a student as a subject of development and self-development (Popov, 2005), we can say that one of the main tasks of education in institutions of higher education should be to stimulate self-processes of students. Therefore, a central element of developmental education is the activation of student's self-activity as a subject.

2. Problem Statement

Educational theory and practice of high school have acquired a considerable arsenal of educational technologies, methods and techniques. Moreover, shifting the focus to the student as the subject of educational activity, determined vigorous development of teaching methods connected with the active share of all participants in the educational process (teacher and learner; lecturer and student). Business and role-playing games, case studies, problem situations, creative exercises, group discussions - this and much more activities are related to active teaching methods, which have been recognized and are widely used in the practice of modern education. The problem is that due to individual psychological characteristics of students (motivation, will, character, settings and others.) the implementation of these methods is more effective for some and less effective for others. The solution is seen in the synthesis of the key positions of the various active learning methods in technology which allows for the consideration of individual learning styles of students. Technology «Open quest study», proposed in this paper is one of the solutions to the problems indicated. This technology includes the organization of educational process, aimed at the stimulation and development of cognitive independence, cognitive abilities, and creativity of students.

3. Research Questions

Fostering the creative - cognitive beginning of students as the subjects of training activities, and the organization of self-construction conditions of educational space, proposed under the technology «Open quest study», makes it possible to improve the effectiveness of training in higher educational institutions.

4. Purpose of the Study

The purpose of this study is to reveal the mechanisms and contents of the technology «Open quest study», which is aimed at the active assimilation of the necessary competences by students of higher educational institutions.

5. Research Methods

The study was conducted in Kazan (Volga region) Federal University, Russia Federation. During creation of this technology, the logic and theoretical analysis were used. As a result the analysis of existing active learning techniques, problematic points in the educational process, and psychological characteristics of students in higher education institutions (needs, motivational, cognitive, creative and emotional components) allowed to create the technology. The leading method of research was experiment. The approbation of the technology was carried out on a sample of undergraduate students during Psychology of Creativity classes. The sample size consisted of 30 participants. Evaluation of the effectiveness of the technology was carried out by methods of observation, interviewing, group discussions, and testing. The participant observation was carried out throughout the period of using the technology and at the end of the pilot action. Interviewing of the participants was carried out at the end

of each session (class) and at the end of the pilot action. Testing was conducted at the end of the pilot action, and was used to assess students' degree of assimilation of necessary competencies.

6. Findings

6.1. Description of technology

At the present time, the educational paradigm focuses on students' assimilation of various competencies. The technology «Open quest study» is directed at the realization of scientific ideas of students, problem solving, learning knowledge, development of communication skills, and making independent decisions in difficult extreme situations. In addition to the research activities, students showed and developed creative skills during the search of new task solutions. The proposed technology opens up the possibility of studying the material in a new educational format. It allows for the activation of the training processes, enables students to be creative, helps them develop independent skills, and increases their abilities to work in teams. With this technology, students receive problem tasks with role-playing elements and solve these tasks using professional literatures and information resources. At the same time, students are also responsible for the creation of these tasks. So with the technology «Open quest study», students receive a specific goal, but their abilities to reach these goals depends on their cognitive and creative abilities and also from the efficient usage of information resources.

The technology structure includes four basic steps: preparatory, expert, search and interpretation.

The first stage - preparatory. It is aimed at the formation of students' motivation to participate actively in the planned activities and activating their cognitive and creative abilities. Students are introduced to the basic ideas of the active technology «Open quest study», and are divided into subgroups, each of which must come up with a "quest", which must be passed by participants of other subgroups. As a form of support, the lecturer (as a coordinator during realization this technology) offers information resources to the students. At this stage, the work of the lecturer aims at motivating participants to actively participate in the upcoming events (both in the creating and in the passing of quests). The main objective is to motivate the students with this technology, and give them settings for group works, so as to create future "quest" jobs. The lecturer describes the step by step process of what students need to do, and gives a description of the final product activity.

In turn, the creating of "quest" activates the creative thinking of students - ability to carry out the transfer of their knowledge to a new situation, to find new ways of solving various problems through the interpretation of problem situations (tasks).

The second stage - the expert. It involves monitoring the creating process of tasks quest, through the active interaction of students with the teacher or coordinator of the technology realization. At this stage the lecturer assesses the completeness of theoretical materials, the distribution of roles, the correctness of goal setting for the participants, plans and organizes comfortable conditions for the effective creative activities of students

The lecturer also discusses the thematic focus of future quests with students. Participants together with the teacher approve future quest tasks and check the readiness of future locations for hosting the main events.

The search stage begins with the immediate implementation of the tasks proposed by one sub-group to other participants. It includes the introduction of students with the content of the common tasks, planning work among participants, distribution of tasks among participants, and discussion of individual results. The quest passing also activates the development of creative thinking of students - participants (as preparatory stage for students – organizers) - ability to transfer their knowledge to new situations, to improvise in the new situation, to find new ways of solving suggested problems through the interpretation of problem situations (tasks).

The interpretation stage includes a group discussion of the process of passing the quest, and an analysis of the results and feedback of group members (exchange of experiences, thoughts and feelings). In the technology «Open quest study» the center of learning is the student, and the lecturer ceases to be the main source of knowledge, he only speaks as a coordinator of the educational processes. Students create the tasks themselves, they seek additional literatures, choose the venues, and create a climate for future quests. Students in the technology process (as the creators of quest tasks and as the participants of quest passing) increase their skills in analysis, comparison of information, and synthesis of new information. Also, students learn to think critically, to solve difficult problems based on the analysis of circumstances, to weigh alternative views, to make their own decisions, and to take responsibilities. Quest creates a positive emotional attitude to the process of cognition, forms the creative potential of participant.

Evaluation of quests differs from the standard evaluation of projects. Even unsuccessful quests have a large positive pedagogical value. Error Discussion creates motivation of students to re-activity, forms a personal interest, and a motivation to try again.

6.2. The results of technology approbation

In the process of testing the technology «Open quest study», four quests were performed by students. All quests were based on the basis of theoretical knowledge of the psychology of personality and psychology of creativity. Students independently distributed their roles during quest passing, studied literary sources and Internet resources, which were recommended by lecturer, thereby forming information skills and communicative competences.

At the end of the active phase of the technology (when all created quests were passed by participants), interviews and group discussion were organized. Interview with participants of the technology was carried out using a multidimensional questionnaire, which included an evaluation of diverse aspects of the technology. The results of qualitative analysis of the data of interviews and discussion showed that the participants appreciated the proposed form class conduction. Students noted that this form was the most interesting to them and expressed the wish to continue training through quests in other disciplines. The qualitative analysis identified the following arguments of students in favor of the use of this technology. Firstly, the informational aspect – the technology allows students to fix old information and get a new. Secondly - logical aspect – the technology enables the development of logical thinking through quest task's the creation and interpretation of the various tasks offered during the quest. The third - involvement aspect - it involves the work of each student during finding and solving problems. Fourth - a group aspect - the students were satisfied with the collective form of

working, if someone didn't see the hint or clue connected with the right answer, someone else noticed, and focused the attention on this. Thus, the participants worked as a unified and cohesive mechanism. Speaking about roles, the participants noted that roles were always distributed on different ways and this distribution was determined by processes of quest passing. So, participants tried themselves in different roles.

As a result, it was found that the implementation of the proposed technology «Open quest study» determines the development of the following competencies:

- Development of creative and logical thinking. It should be noted that students who organized quest, developed creative thinking, and students, who passed quest tasks - logical. So for the development of these two kinds of thinking, it is necessary that every student played both roles.
- The development of skills in team work (team-building).
- The development of verbal and non-verbal communication skills.
- The development of ability of both individual and collective creative thinking.
- Development of analytical, synthetic and logical thinking in solving tasks.

Thus, during the process of testing the «Open quest study» technology, which was carried out in the discipline of "Psychology of creativity" among students, its effectiveness has been proven. Evaluation of the effectiveness of the technology involved the use of the following means: the feedback from the participants, testing knowledge, interview and observation of the process of quest tasks passing.

7. Conclusions

This study allows us to formulate the following conclusions:

The "Open quest study" technology was created. This technology is based on the idea of transition of student's cognitive activity from reproductive to productive processes, through the mechanism of activation of their creative abilities.

The theoretical basis of the proposed technology involves the synthesis of three ideas: the zone of proximal development, the student in educational process as the subject of educational activity, and constructivism in education. The technology combines both key positions of active learning theory and positions on individual-oriented approach.

The approbation of «Open quest study» for students in higher educational institutions has proven its effectiveness on the example of the course on the subject "Psychology of Creativity" among psychology students. The technology is open for content changes and can be used for assimilation of competences from various disciplines at different learning profiles.

Research materials may be useful for graduate students and lecturers at higher educational institutions interested in the use of innovative educational technologies to improve the efficiency of student learning.

References

- Brooks, J. G., & Brooks, M. G. (1993). In search of understanding: The case for constructivist classrooms. Alexandria, VA: Association of Supervision and Curriculum Development.
- Brushlinskii, A. V. (2003). The psychology of the subject. Saint-Petersburg: Aletheia.
- Davydov, V.V. (1996). The theory of developmental education. Moscow: Intor.

- Dragonas, T., Gergen K. J., McNamee Sh., & E. Tseliou (2015). Education as Social Construction: Contributions to Theory, Research and Practice. Taos Institute Worldshare Books Publications, 12-19.
- Gergen, M. (2015). Losing the “Lie”: Teaching “Intro” from a Social Constructionist Position. In T. Dragonas, K. J. Gergen, Sh. McNamee, & E. Tseliou (Eds.), *Education as Social Construction: Contributions to Theory, Research and Practice*, 108-120.
- Ivoshina, T.G., Shvareva, L.V. (2010). Pedagogical conditions as a source of student’s self-change. *Proceedings of the higher educational institutions. Volga region. Humanities*, 4, 153-160.
- Kiraly, D. A. (2000). Social Constructivist Approach to Translator Education: Empowerment from Theory Practice. Manchester/Northampton: St. Jerome.
- KKudryavtsev V.T., Urazalieva G.K. (2002). The subject of activity in ontogenesis. *Questions of Psychology*, 2, 14-30.
- Morrison, A. & Chorba, K. (2015). Relational Learning in Education. In T. Dragonas, K. J. Gergen, Sh. McNamee, & E. Tseliou (Eds.), *Education as Social Construction: Contributions to Theory, Research and Practice*, 121-139.
- Popov, L.M. (2005). The concept of the human as a subject of development and self-development. *Scientific notes of the Kazan University: Series: Humanities*, 147 (2), 123-138.
- Tchoshanov, M. (2000). The process of continuous construction and reorganization. *Director of school*, 4, 56-62.
- Vygotsky, L.S. (2010). Pedagogical psychology. Moscow: Astrel.
- Zimnyaya, I.A. (2000). Pedagogical psychology. Moscow: Logos.
- Zuckerman, GA (1996). From the ability to co-operate to the ability to teach themselves. *Psychological Science and Education*, 2, 27-42.