

Students' creative activity development in the educational project

Desarrollo de actividades creativas de estudiantes en proyecto educativo

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ABSTRACT:

The strategy of modern education is aimed to provide opportunities for all students to show their talents and creativity. It corresponds to modern humanistic trends in the development of the graduate school. It is a fundamental principle, which is based on personal orientation. It relies on the subject experience and needs of each student. Methodology. The activity in the logic of the educational project, based on creative thinking, is characterized as conscious psychological processes (comparison, analysis, synthesis and their derivatives: analogy, combinatorics, opposition, etc.) and unconscious thinking. Results. The educational project activity includes the following stages: searching for information, studying the information, and creating something new. The educational project is defined as a didactic means, joint educational and cognitive creative activity of students. It assumes a common goal, agreed methods of activities. The methods are aimed at achieving a common result for solving the problem that is significant for the project participants. The following components are recognized in it: motivation, innovative technologies, creativity. Discussion. The mechanism for implementing the didactic model of the development of students'

RESUMEN:

La estrategia de la educación moderna tiene como objetivo proporcionar oportunidades para que todos los estudiantes demuestren sus talentos y creatividad. Corresponde a las tendencias humanistas modernas en el desarrollo de la escuela de postgrado. Es un principio fundamental, que se basa en la orientación personal. Se basa en la experiencia del sujeto y las necesidades de cada estudiante. Metodología. La actividad en la lógica del proyecto educativo, basada en el pensamiento creativo, se caracteriza como procesos psicológicos conscientes (comparación, análisis, síntesis y sus derivados: analogía, combinatoria, oposición, etc.) y el pensamiento inconsciente. Resultados. La actividad del proyecto educativo incluye las siguientes etapas: búsqueda de información, estudio de la información y creación de algo nuevo. El proyecto educativo se define como un medio didáctico, educativo conjunto y actividad creativa cognitiva de los estudiantes. Asume un objetivo común, métodos de actividades acordados. Los métodos tienen como objetivo lograr un resultado común para resolver el problema que es significativo para los participantes del proyecto. En él se reconocen los siguientes componentes: motivación,

creative activity in the logic of the educational project includes: the creation and development of the educational environment; the algorithm for realizing the tasks of developing students' creative activity; pedagogical conditions for the development of students' creative activity. Conclusion. The most effective direction for the development of students' creative activity is the formation of a complex of psychological and pedagogical conditions. A student will be able to take a clearly expressed personal position in solving the problem situations and to approach them creatively.

Keywords. Educational environment, project, project stages, algorithm, pedagogical conditions.

tecnologías innovadoras, creatividad. Discusión. El mecanismo para implementar el modelo didáctico del desarrollo de la actividad creativa de los estudiantes en la lógica del proyecto educativo incluye: la creación y el desarrollo del entorno educativo; el algoritmo para realizar las tareas de desarrollo de la actividad creativa de los estudiantes; condiciones pedagógicas para el desarrollo de la actividad creativa de los estudiantes. Conclusión. La dirección más efectiva para el desarrollo de la actividad creativa de los estudiantes es la formación de un complejo de condiciones psicológicas y pedagógicas. Un estudiante podrá tomar una posición personal claramente expresada al resolver las situaciones problemáticas y abordarlas de forma creativa.

Palabras clave Entorno educativo, proyecto, etapas del proyecto, algoritmo, condiciones pedagógicas.

1. Introduction

In the new educational approach special attention is paid to personality-oriented activities that ensure the formation, development, self-development and self-realization of trainees, their creative initiation in a dynamic socio-cultural environment. Such environment corresponds to the modern humanistic trends of the Russian graduate school, which relies on the subject experience and needs of each student. The aim of the modern education strategy is to enable all students to show their talents and creativity. These positions correspond to modern humanistic trends in the development of the graduate school, one of the fundamental principles of updating the content of which is personal orientation. It relies on the subject experience and needs of each student. In the resolution of the Russian Federation Government "On the Development of Humanitarian Education in the Russian Federation" (Korzhev and Sergeeva 2015) particular attention is paid to the orientation of the individual toward the conscious development of independent critical thinking. Undoubtedly, the judgment of P.F. Kapterev that "if the person himself does not process the acquired knowledge, he will not be able to develop" is true. The new educational paradigm assumes the understanding of education as a function of personal culture, the establishment of the goal to develop the personality of the trainee" (Sergeeva 2015).

Today, pedagogy recognizes the importance of building flexible learning technologies that reflect the modern vision of the educational process (including the method of projects). The prospects for the technologies application in the educational process are theoretically justified, and attempts to identify their organizational and pedagogical foundations are made.

When organizing the project training activities, the most favourable conditions are created. Educational processes based on the technology of projects are evolutionary ones. They take into account the needs of the present, change priorities from the assimilation of given knowledge to student's independent creative activity, which does not always fit into the system of a regular training session. In addition, the specificity of education in humanities involves the search for models of cooperation and integration of several subject areas. It broadens the boundaries of creative search for students and teachers (Stepanov 2012).

However, educational project technologies are only in the stage of formation and as a field of theory and practice need further development, because this direction is relevant for the modern system of education and pedagogy in general. Modeling, designing of technological chains of procedures, methods, forms of interaction between the teacher and students, which guarantee high educational results, are especially important. Educational project activity is understood as a creative process aimed at revealing and satisfying students' cognitive needs through the creation of an ideal or material product with subjective or objective novelty. The gradual sequence of the project activity makes it possible to build the learning process in logic that has a personal meaning for the student. It will raise the level of their creative activity (Rakovskaya 2008a).

The project activity is the creative mental activity based on information processing. It is

characterized both by logical and by intuitive thinking mindset. This activity is conditioned by personal qualities and creative abilities. It has certain values. In the process of studying the humanitarian disciplines the project activity introduces students to creativity, to the active formation of something new. It forms non-standard thought, promotes creative enrichment and development, increases personality's creative potential, develops the general and special abilities. Along with that, in spite of the growing interest to the humanitarian sphere, the students are not supported with methods of active creative interaction in the current educational practice (Khutorskoy 2008). In the number of cases instruction is still predominantly formal. Explanatory-illustrative and reproductive methods of instruction prevail. Their dominance significantly hampers the development of the student's creative potential and individuality. The priority of the development of students' creative abilities, proclaimed at the level of state policy in the field of education, is far from real implementation in practice.

2. Methodology

Significant changes in the system of education over the past decades have led to a change in the very paradigm of its construction. Developing education has ceased to be only a scientific concept and is being transformed into real practice. It necessitates the creation of an instruction model aimed at the creative development of the students' personality, their individual abilities and interests.

The problem of the development of creative activity is examined at the inter-disciplinary level. The philosophical aspect is connected with the definition of the creative personality as being active in the surrounding world. In psychology reasoning/thinking is the initial dynamic characteristic of the people's communication. The pedagogical aspect emphasizes the features of the creative personality: a vivid humanistic character, focus on development and self-development, organized cooperation and creative interaction of students and teachers (Rakovskaya 2008b).

On the assumption of the leading ideas of the creativity theory, we will assume that the activity in the logic of the educational project, based on creative thinking, is characterized as conscious psychological processes (comparison, analysis, synthesis and their derivatives: analogy, combinatorics, opposition, etc.) and unconscious (intuitive) thinking.

Project activity as a specific form of creativity is a universal means of personal development. It is especially productive when working with students, in accordance with their aspirations for the future and the desire for active self-realization. In addition, for the student project activities can be an effective means of personal professional development, the formation of professionally significant creative qualities, improvement of the reality and self-improvement (Ulyanchenko 2007).

The analysis of the project activity genesis (Ulyanchenko 2007) shows that project is one of the types of activity that appeared in the people's public life long time ago and is associated with the reality transformation. The subject of the project activity may be an individual or a group. The object of the project activity is both material objects and technologies, programs, systems.

We state that the project activity correlation with such philosophical indicators of creativity as "combining" and "freedom" is significant.

Combining is evident in the construction of operational models (the stage of synthesis) in the project activity. The image of the project activity object is transformed here on the basis of a search of various combinations of the most significant parts.

The analysis of the project activity allows us to conclude that the subject of the project activity makes a free choice, guided by the goal, at all stages: selecting sources of information for studying the problem, analysing and selecting theories, modeling various combinations of the project activity object, defining one conceptual model from the set of options.

Educational project activity is based on creative thinking, accompanied by psychological processes (conscious - comparison, analysis, synthesis, unconscious - thinking) and has the

following main characteristics (Rakovskaya 2008c):

- *subjectivity* - it is the student who plans and carries out activities, regulating their implementation and results in accordance with students' needs, personal abilities;
- *objectivity* - the student's activity is directed at the subject, on which its content, means, methods, products and result depend, i.e. scope of student's activity;
- *activity* – the need of energy costs for the implementation of project activities and the need to achieve results;
- *purposefulness* - a structured sequence of operations and actions allows to achieve intermediate results and a final creative result corresponding to the goal;
- *motivation* - promotes the awakening of personal activity;
- *mindfulness* - giving individual meaningful sense to specific actions on the basis of coordination of the need, motive, purpose of the project activity.

Theoretical and methodological analysis of students' project activity allowed to distinguish its functions (Rakovskaya 2007; Yusufbekova 1991):

- *self-transformation* - is manifested in the desire to be recognized by others, in the independent creation of conditions for its full manifestation and in the ability of students and teachers to transform the relation to reality creatively;
 - *adaptation* – due to this function the student adapts to the constantly emerging new situations in the educational project process, finds a way out in non-standard situations; also this function provides a mechanism for social and psychological socialization of the individual;
 - *reflection* – this function carries out reflection of the received knowledge; deep and conscious knowledge is an important means of the further self-development of students' activity; it is especially important at training in humanitarian disciplines;
 - *search* – is manifested in the cognitive independence of students in transition to a higher level of project activities.
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3. Results

The educational project activity includes the following stages (Sirotyuk and Sergeeva 2011):

- 1) *information and retrieval*, when information is searched (development of individual and group tasks, analysis of the student's personal experience, definition of resources, etc.) and studied carefully;
- 2) *research*, when the ways of solving the problem, the amount of independent work of students, ways to evaluate intermediate results and their correction are selected.
- 3) *creative*, when the presentations are prepared, actively discussed and protected, etc.

The project activity stages (goal-setting, analysis, synthesis, evaluation) correspond to the acts singled out by the psychologists. Thus, R.S. Mensfill (Rakovskaya 2008d) and T.V. Busse (Rakovskaya and Sergeeva 2014) point out the following activity acts: the problem choice → purposeful long-term effort → the set of restrictions ascertainment → changing and overcoming the set of restrictions → checking and detailed development. V.A. Molyako (1983) gives some other names to these phases: the problem emergence → the problem formulation → preparation for the solution → the idea formation → the concept embodiment → verification and refinement.

The educational project is defined as a didactic means, the joint teaching, cognitive, and creative (or game) activity of students. It assumes a common goal, agreed methods, methods of activity aimed at achieving a common result for solving the problem that is significant for project participants (Platonova and Ulyanchenko 2007).

The project implementation allows students to act independently, to receive the result in accordance with a pre-designed plan, to work, interacting with each other and in cooperation with the teacher. The students are also able to prove, argue, draw a general conclusion, and defend their point of view while respecting the ethic of behaviour. This educational

technology makes it possible to individualize the educational process, enables the student to show creative independence in planning, organizing and controlling their activities in the emerging educational space.

The goal of the **didactic model** of the development of students' creative activity in the project activity process is to create such an educational space where the predictable level of students' creative activity can be achieved. We distinguish the following structural components in the model: motivation, innovative technologies, creativity.

The content of each structural component is revealed through modules: general-didactic, subject-methodological and psychological-didactic (Sergeeva and Rakovskaya 2012).

The *general-didactic* module solves the following tasks of developing students' creative activity:

- a) the acquisition of cognitive, emotional-volitional, psychological properties (character, abilities, inclination) by the students;
- b) the perfection of personal characteristics (mind and will mobilization, constructive independence, unexpected associativity, ability to solve creative non-standard tasks, etc.).

The *subject-methodological* module of the didactic model assumes the solution of the following tasks:

- the formation of stable cognitive interest of students in their future professional activity;
- the active use of innovative technologies;
- the formation of communication links and exchange of constructive experience with participants of other projects.

The *psychological* module and its blocks allow to solve the following tasks:

- the formation of students' humane orientation, ensuring the individual's free development and self-realization in educational project activities and in further professional self-assertion;
- the formation and development of the individual's creative qualities;
- the formation of a comfortable creative educational environment, which provides the opportunity for development and manifestation of students' creative activity.

The presented model, in our opinion, is quite complete and versatile in terms of describing the object of modeling. It is open to improvements. Its components, without changing their functions and names, can become more complicated in the process of using the model.

4. Discussion

The mechanism for implementing the didactic model of the development of students' creative activity in the logic of the educational project includes (Sumnitelnyy 2007):

1. the creation and development of an *educational environment*, where the students and teachers' opportunities are assessed, rules for their creative interaction are established, a choice of methods and technologies in the implementation of training projects is carried out;
2. the *algorithm* for realizing the tasks of development of students' creative activity; it contains the formulation of goals, tasks, stages, methods, forms and results of ongoing training projects;
3. the *pedagogical conditions*, which facilitate the creative students' activity. They are: 1) a high level of participants' information literacy and their psychological and pedagogical readiness; 2) material and technical support; 3) compliance of the curriculum content with the logic of students' creative activity; 4) system interaction and productive cooperation of participants in the educational process; 5) adoption of learning outcomes (practical, theoretical significance of the expected results; further application of acquired knowledge in the process of creative project activity).
4. the non-traditional *methods of teaching*:
 - the application of harsh conditions (the method of new options, information insufficiency, information saturation);

- the group solution of creative problems (the Delphi method, the "black box" method, the method of diaries);
- the collective stimulation of creative search (the method of "brainstorming", the method of "unexpected thoughts", the method of focusing on the object, etc.) and *technologies* (museum-exhibition, information, cooperation, "image and thought" technologies, creative workshops, etc.).

The **criteria and indicators** of the development of students' creative activity in the logic of the educational project were singled out in the research (Shmelkova 2008):

- 1) "*sense of novelty*", the cognitive interest of the individual (characterized by the originality of thinking, the ability to navigate in new conditions, the ability to solve learning tasks creatively, achieving novelty of results);
- 2) *the state and dynamics of development of various creative thinking qualities* (creativity, ability to reflect, independence, criticality);
- 3) *the degree of awareness* of operations and thought activity techniques on the basis of concepts, laws of logic, evidence, refutation of the ways of achieving the truth;
- 4) *modeling, systematization, structuring* of the material in the process of work on the training project.

Based on the selected indicators, the levels of development of students' creative activity were established.

Students who have reached *the sufficiently high (creative) level* of activity development are characterized by independence, divergence of thinking, high intellectual level, mastery of self-control skills, initiative, and speed of solving the problem or task. At *the insufficiently high (productive) level* students show a wide but unstable cognitive interest, sufficient intellectual activity; they are characterized by a slower pace of solving creative tasks and a limited number of proposed solutions to the problem. Students of *the middle (reproductive-cognitive) level* are characterized by the manifestation of passive knowledge and skills strengthening, lack of self-fulfillment of non-standard character tasks, and weak skills in self-control. At *the low (reproductive) level* students demonstrate weak knowledge in different fields, indifference to the problem, lack of skills and abilities in the learning process. They are prone to reproductive activities, they practically do not use self-control techniques (Rakovskaya and Sergeeva 2014; Chernova 1997).

5. Conclusion

The most effective direction of work for the development of students' creative activity is the creation of a complex of psychological and pedagogical conditions. The student can take a clearly expressed personal position in solving problem situations, arising in the logic of the educational project, and creatively approach their solution.

This didactic model of development of students' creative activity in the logic of the educational project ensures the growth of knowledge in the humanitarian disciplines, forms communicative and professionally significant qualities (independence, initiative, flexibility, mobility, etc.). It allows students to expand personal opportunities.

The mechanism of pedagogical support (developmental tasks of cognitive and creative nature, group and collective organization of the educational process, students' own research practice) stimulates the development of creative activity and contributes to the formation of the student's subjective position.

The students' activity in the logic of the educational project can be characterized as a continuous dynamic process of manifestation of the creative activity of the student's personality, which is determined by integrative links of the main stages of the project activity. It provides intrapersonal motivation on the basis of goal-setting, the development of the idea, its implementation, and obtaining concrete results in the form of a new creative product. The new product is the result of the project activity in the study of humanitarian disciplines.

The results of the experiment showed that the created organizational and pedagogical

conditions effectively influence the development of the intellectual, communicative and creative abilities of the individual, ensure the growth of self-esteem, awareness of self-sufficiency. According to the results of testing and comparative analysis of the data, it can be concluded that the activity in the logic of the educational project positively influences the development of students' thinking flexibility in the study of humanitarian disciplines. It indicates a diversity of ideas and strategies, the ability to move from one aspect to another. At the Institute of Foreign Languages of Peoples' Friendship University of Russia an educational environment has been created and continues to develop. The opportunities of students and teachers are assessed, and the rules for their co-creation are established.

The carried out research does not exhaust all aspects of the issue, which, of course, require further development. It seems promising to study the nature of the inter-subject creative interaction of the participants in the educational process in the logic of the educational project. The content and the nature of the applied pedagogical technologies in the educational project are of great importance.

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