

Step-By-Step Processes of Creative Activity of Students in Problem-Based Teaching of the Department of Physics "Electrodynamics" in Secondary Schools

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ABSTRACT	In this article, the systematic processes of the reader's creative activity in the problematic teaching of the physics section "Electrodynamics" in secondary schools are explained logically in a row, sequentially, in accordance with scientific and didactic principles.	
		Problem, Experience, Component, Attitude, Opportunity, Passive,

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Asset, Activity, Situation, Thought, Interest, Emotion, Motivation, Motivation, Need, External Effect, Internal Effect, Creative, Surprise, Reality, Analysis, Synthesis, Interpretation, Characteristic.

Introduction, Literature Review And Discussion

In the teaching of the Department of "Electrodynamics" of physics in secondary schools, the system "Student and educational material" is analyzed. Thus, the interaction of the reader and the problematic content of relationship learning. the between the organization (comps), interaction, first of all, in accordance with the educational activity of the reader, and then the educational material - the analysis of problem-based learning in terms of content, the scope of interpretation of its technological and instrumental characteristics [8].

Teaching is a social task assigned to a student in the social distribution of labor. Reading and the reader interpret the two states of learning in the interaction of creativity: passive situation – traditional teaching – teaching. The teaching in this context is based on the oral explanation of the teacher, and it is intended for memorization; an active situation is a creative teaching of the problematic content of learning, which is based on the independent mental activity of students. Problem-based learning is thoughtful teaching of creative thinking [9].

The Student's creative study of the content of problem-based learning in the section "Electrodynamics" of physics reveals the need for motivation. motivation. emotions. admiration and cognition of the student's interest in the studied problem-based learning. A person "Moves from need to thinking, from the dynamics of thinking to the dynamics of behavior" [2, 10]. In the synthesis of external influence and internal sound, the reader begins to create. The achieved result is formed as a product of independent mental activity, contemplation [1].

Creative scientist and reader there are a number of common and different aspects in the activity of creativity. Creativity (creativity) is common to the activities of scientists and readers. The scientist discovers unknown problems in science, and the reader discovers unknown facts for himself. In both cases, innovation is not cheap in the first place. Because without creativity, both the scientist and the reader develop their personality. At the same time, if a scientist contributes to the development of science, Society through Science, in the process of creativity; the reader personal abilities through develops his creativity, prepares himself for the future [5, 6]. These two characteristics of the product of creative activity are characterized by the social characteristics of the activity of the scientist and the reader[7].

In the system of interaction between reading and creative activity, two different relationships are distinguished: the reader and the educational material; the reader and the Real being. The first of these relationships arises between the reader and the characters (for example: drawing, picture, table, diagram, graph, diagram formula). Because every educational material is materialized in the form of a formula or live speech. The last of the relationships is between the reader and the Real Being. The real thing noted in problem-based learning is the fields of pedagogical sciences [8].

If viewed from the perspective of interconnection, the reader's creativity is a two-stage process in which they:

1. The process of collision with conventional signs. In this process, the following two types of changes are noted:

a) From the influence of the reader to the perceived state of the characters;

b) Changes occurring under the influence of conventional signs – interpretation of symbols, the content of which they set in the tool.

2. The process of transferring the content specified with the help of conventional signs to a specific area. In this process, the following two variations are also noted, they are:

a) Translate conditional symbols into selfsufficient (relevant) content under the influence of the reader; interpret which field of textual activity is educational science;

b) Changes occurring in the reader's mind under the influence of conventional signs – understanding, thinking, analysis and synthesis.

So, in didactics, the study of signs (for example: a drawing, a picture, a table, a diagram, a graph, a diagram formula), the determination of their properties, the analysis of the relationship between a sign and the content it represents, is a methodological problem that their researchers are waiting for.

Two of these changes are "a", "a" formal changes, two are "b" and "b" content changes. Formal changes, content changes in problembased learning occur in the student. Changes in the content that occur with students in the process of problem-based learning have didactic significance. Therefore, the analysis of changes in the content, their essence, is a problem related to the didactic nature of creativity.

In problem-based learning, the reader applies various connections in the processes of meeting with conditional characters of creative activity and transferring their content to his field.

In fact, the reader's knowledge and creative methods are two sides of something, that is, the object being studied. Organization of the reader's creative activity we have selected printouts from the methods of creative activity related to the problematic teaching of physics in order to move on from information.

Above, the interaction of the student and problem-based learning is analyzed in accordance with the creative activity of the student and the characteristics of the process of this effect are described. Now interaction is studied mainly because of problem-based learning. Thus, we will try to give a description of the means of interaction. The interaction of the makes it easier for us to understand its essence by giving a description of the material that the reader is talking about, and then problem-based learning.

Interaction is an integral system; it has its own purpose, engine, result. The goal realized at the previous stage, at the next stage becomes new theoretical knowledge, acquisition of

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practical skills, qualifications and competencies, problem-based learning new tool. а Consequently, one of the main features of the "creative activity of the reader" is the use of knowledge, theoretical practical skills. and competencies qualifications at the discretion of the teacher as a condition for enriching the subconscious with new theoretical knowledge. practical skills. qualifications and competencies. Interaction as an integral system has three states: the beginning, the middle, and the last.

In accordance with the above three cases, problem-based learning is practiced in the reader's mind: understanding, understanding and decision-making of problem-based learning; problem-based learning.

Each result is achieved in at least two different ways: awareness of problem-based learning; understanding, formula, rule, courtesy of laws (1), as well as theoretical knowledge, practical skills, qualifications and competencies; methods of activity, development of reader's witchcraft activity (2); decision-making, information received in accordance with communication with the tools (1) and the psychological consequences of the reader's witchcraft actions – the use of memory, contemplation, comparison, selection, induction or deduction. The results of the problem-based learning process and the relationship between the tools for solving them are presented in Figure 1 below.

Three different results will be achieved in three cases of problematic student learning:

- Awareness; in this process, the reader is involved in the physiological technologies of creative activity and their tools;

- Decision-making; in this case of problembased learning, the reader is involved in psychological technologies of creative activity and related tools;

- Teaching; in subsequent cases, the student will use logically linking technologies of creative activity and related tools.

Therefore, problem-based learning has physiological, psychological, logical connecting technologies, tools and results



1-picture. To achieve three different results in three cases of problematic student learning.

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