STAGES OF DEVELOPMENT OF STUDENTS' LOGICAL-SCIENTIFIC OUTLOOK IN THE PROCESS OF LEARNING PHYSICS

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Abstract: This article describes the goal of teaching physics and the stages of development of logical-scientific outlook of students in the process of teaching physics. An effective algorithm for combining experimental laboratory training and theoretical training is explained.

Key words: logic, scientific outlook, physical landscape of the universe, algorithm, stages of development

The main issue of pedagogy is to know who to teach and what to teach. Including, the main goal of teaching physics is the ability to think logically about the role of physics education in the development of science and technology, production areas and life, mental development, to form the potential of self-awareness, in them national , to acquire the knowledge necessary for the formation of universal human values and to continue their social life and education , to teach them to use them in their daily lives, and to apply physical knowledge to life, connecting practical activities with expanding the worldview of students regarding the physical landscape of the world consists of formation and development of receiving capacity.

In the process of teaching, it is important to teach students to apply the important rules of science in order to understand and explain the nature of physical phenomena, conclusions from the results of experiments, and the operation of instruments and devices. Physics course each one in the department main the material separate show to the teacher students attention their deep and strictly mastery need has been to issues towards to get help will give. Physics experiments are education of giving all stages physics of teaching indispensable part, knowledge source and teaching method is considered Experiments through future physics in their teachers logical-scientific worldview development training take going from the teacher standard projects based on one series typical professional skills Demand does of the experiment methodology and technique in education methodical of actions composition enough level complicated being, him done in raising one how many to the rules compliance to do must will be Experiment transfer and demonstration to do through of students logical-scientific worldview development technology phased approach based on organize

when done the most efficient is considered These steps motivational, intellectual, practical-operational, technological and reflexive to stages to be can.

Motivational stage: First of all , the learner placed to the matter relatively interest, his science , education , nature, society and human being in his life held place about initial interesting information , questions and problems with get to know part will be.

Intellectual stage: It is known that the experiment in transfer final product example as the goal formation and analysis to do professional and methodical of activity structural part is considered Theoretical stage of the experiment purpose thorough thought without conscious respectively to put for the material content analysis to do necessary Also an experiment to the subject circle physicist theory and laws with get to know it is necessary A student teacher with short conversation during one series to questions answer give (this questions recommendation done literature or Methodical in the instruction given can also be) or tests perform as a result the experiment to perform permission take need.

Practical-operational stage: Experiment to perform permission received student the device go to work enters Device collect from being divided after teacher him checks of the device right to the gathering trust harvest from being done after teacher the experiment of execution methodology and of the technique main parameters of the student attention attraction did without the experience perform according to instructions gives, allows as long as the experience student with together one times done, the result get according to example to show gives a positive effect. Next experiences of the student himself independent continue makes A student the experience one how many times repeated done and the results writing from what he received after count their work performs Being determined of size in experience received of values average arithmetic value counts. Then look experience mistakes counting finds Experiment during above actions done increased in students experiment for equipment Select the device assembly work, equipment makes sense in sequence place, measure their work performance, observed event or of the process physicist essence to understand and conclusions release such as competencies develops.

Logical-scientific worldview development process from students in class and from class except independent things in execution above Methodical actions many p repeatedly again perform Demand does As a result activity technique get used to it , then often repetition at the expense of to qualification and to competence becomes Physics the experiment choose for the following basis is :

• education direction of graduates future to their professions in the future necessary divisor knowledge to take over directed the goal.

• current education stage educational duties;

• of students physicist learning and research of activity structure;

• physicist concepts of formation main stages ;

• creative activity experience done increase Experiment in choosing educational tasks to be considered a leader because it is necessary they are eventually study material of learning structure and logic, students of activity organizational forms, material present reach methods set will give. Students to know activity reproductive from the degree creative reproductive to the degree will rise. Duties done in raising professional knowledge and technological of actions integration important role plays To assignments based on education method pedagogical management interiorization and to exteriorization based on will be Internal and external of actions mutually effect cycle process students by teaching methods and tools more complete to be assimilated help will give. Operative tasks solution to do many p times again repetition in memory pedagogical activity algorithms to strengthen possibility gives, of actions leader content to understand, to understand and later on of them professional in action use repetition competencies have will be Physics events explanation, physics amounts input skills formation process relatively complicated is not only teaching activity methods to know, maybe their essence deep need to understand does. Technological stage: At this stage students Methodical problems solution do it concept, phenomenon, law and others study for technological the map work they come out, show experiment and frontal experiments using of the lesson one part they design. The problem solution of doing necessary element observed of processes physicist essence is an explanation. Methodical of duties reproductive and creative-reproductive level theoretical to the standard according to and study of the situation to himself special conditions account received without solution to do own into takes. Main attention practical study goals to reach directed. Reflexive stage: This stage the finisher and conclusion be, then done physicist the experiment protection to do and introspection (experiment deep learning and knowing, individual thinking) to do the following algorithm according to done increase can:

1) of the experiment one part plate as demonstration experience with show

2) experience of the fragment what for chosen justification;

3) physicist of the experiment application to the fields circle examples bring

4) received experience the results makes sense to comments based on analysis to do

5) preliminary mastered theoretical data with experience the results compare, confirm or necessary corrections for thought notice

This is it the experiment transfer methodology teacher as open to give Experiment purposeful choose according to affairs future physics of teachers experimental readiness significant level optimizes, in them initiative , demonstration experiences in preparation creativity , manual made from tools use at home executable experiments done increase competencies develops.

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