

# Key And Derivative Indicators for Assessing the Quality of Lesson in Physics

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**Annotation.** The article discusses the indicators that assess the quality of physics lessons. Also, the necessary rules, guidelines and recommendations for the presentation of the subject of physics have been developed.

**Keywords:** Lesson, purpose, competence, scientific, form, means, didactic materials, attention, thought, control, program, independent.

It is known that the lesson is one of the objects of research, which includes many competencies of the educational process. Therefore, despite the negligence of the organization and management of the teaching process, teachers are required to be well prepared in scientific, methodological and didactic aspects. To do this, it is important that each teacher knows the basic and derivative indicators that determine the quality of the lesson and be able to apply them in practice

The main indicators for assessing the quality of lessons on the subject of physics include the following:

- a) the student's interest and aspiration to learn physics;
- b) competence in working with physical catalogs, tables, process schedules, diagrams, laboratory descriptions, equipment;
- c) the level of scientific and methodological knowledge of the teacher in the curriculum of physics;
- d) the ability to distinguish the main ideas given to students in the explanation of the topic, the ability to follow the principles of consistency, consistency, scientific, continuity, membership, demonstration, harmony of theory and practice;
- e) pay attention to consistency and consistency in expressing the purpose of the lesson topic;
- f) Implementation of types of assessment in accordance with the requirements of the Regulations on the procedure for monitoring the student achievement in higher education institutions on the credit-module system;
- g) the distribution of time in the middle of the lesson and the acquisition of a culture of communication.

If a physics teacher systematically follows the main indicators that assess the quality of the lesson in preparation for the lesson, it is possible to increase the quality and effectiveness of teaching, to increase students' interest in learning about physics. On the contrary, the teacher hinders the improvement of the quality of the lesson, the lesson becomes boring, and the students' time is wasted. In the minds of students, a negative impression of the teacher is formed, he loses his reputation. The saddest part is that the students' interest in science and their desire to learn it are fading.

In some literatures, a lesson is defined as a form of learning based on the material taught to students in order to acquire knowledge, skills, competencies, worldviews and spiritual and moral aesthetic ideas, while in others, a lesson is defined as a part of the educational process.

The fulfillment of the requirements set in the curriculum and syllabus of physics, the acquisition of new knowledge by students, the development of scientific outlook is carried out only in the classroom.

Physics lesson plan is a brief description of the lesson, which reflects the topic of the lesson, goals, objectives, its progress, as well as forms of monitoring and assessment of students' knowledge.

The concept of lesson planning was first introduced to pedagogy by the German scientist F. Introduced by Herbart.

Every physics teacher who will be familiar with the concept of physics will be introduced to such subjects as "General Pedagogy" and "Methods of Teaching Physics" for the first time in higher education.

We can show the following structure of the physics lesson plan:

- Expression of the lesson topic;
- Objectives of the lesson;
- teaching aids;
- The flow of lessons;
- independent assignments;
- Recommendations for literature.

Lesson topic. The subject of the lesson should correspond to the working curriculum of the subject. Before the lesson begins, the teacher writes the name of the topic on the board or in the presentation of the lesson. Physics lesson:

- educational;
- educational;
- performs developmental functions.

The educational function of the physics lesson is designed by the teacher to provide students with concepts and knowledge about physical processes, quantities and laws, the formation of skills and abilities.

In the educational function of the physics lesson, the teacher projects the importance of inculcating in the minds of students the educational components of the teaching material in physics.

The developmental function of the physics lesson is aimed at developing students' logical thinking, taking into account the fact that the teacher takes into account the creativity of students in the analysis of physical phenomena, processes.

When a physics teacher enters a lesson unprepared, the following arguments of the educational function are not fulfilled:

- The purpose of the lesson is not fully understood by students;
- ineffective use of interactive methods;
- does not ensure the active participation and independent work of students in the classroom;
- speech is not fluent, understandable, effective;
- cannot explain the topic in connection with the operation;
- can not recommend the use of additional literature;
- The questions asked to reinforce the lesson and assess students' knowledge are not formulated in a problematic way;
- lessons will not be effective.

In the expression of the purpose of the lesson in physics - attention to the specifics of the topic, the level of creativity of students in mastering the subject, the place of the topic among the topics, the expression of the purpose in accordance with the topic, the achievement of the goal

When designing a physics lesson plan, the lesson plan should be structured in accordance with the intended purpose, the plans should be logical and coherent and interrelated, the time should be correctly allocated for the items of the plan, and should not deviate from the forms of teaching.

In the development of the content of the course in physics - the content of the course meets the requirements of the State Educational Standards and Qualifications, the reliability, completeness, comprehensibility of the subject materials, the scientific and educational direction of the material in the field of life and career. It is necessary to plan the importance of

In the methodology of teaching physics - the level of students' mastery of the subject materials is directly related to the methods used by the teacher. It is known that physics lessons in higher education institutions are conducted in the form of lectures, practical classes, laboratory work, seminars. The teacher has a high level of communication skills in the classroom; the appropriate and effective use of visual aids, in particular information technology tools, the ability to work with diagrams or tables with laboratory equipment, and the acquisition of skills and competencies are important.

The effectiveness of the methodology used in the lesson is determined by the results of monitoring, which shows that students have mastered the subject materials.

In this case, the teacher: the appropriate choice of methods, tools and techniques of teaching; correctly state the purpose of the lesson; correct application of methodical approaches at each stage of the lesson; diversity of methods and techniques used; effective use of modern pedagogical and information technologies, visual

aids, handouts and didactic materials; It is important that students' knowledge, skills, and competencies are monitored and evaluated in accordance with the criteria set out in the Regulations.

In the teacher's meeting with students - the importance of discipline in the classroom and the fact that students follow the learning activities; review the general readiness of the classroom; to constantly monitor the attention and activity of students, their interests in science; high pedagogical ethics, fluent speech, expressive language, good organization of the psychological environment in the classroom; to keep it, he should express only his thoughts on the subject of the lesson.

In the assessment of students' knowledge - the quality of the knowledge, skills and competencies acquired by the Physics teacher; strong and in-depth knowledge; control types should be evaluated and formalized in accordance with the rating criteria, fairly and objectively.

In the science of the subject - a) in-depth scientific and methodological knowledge of the subject; b) give examples of current problems in science in explaining the topic; c) to state the rules and definitions of the law of physics in a scientific way, as well as to inculcate in students the essence of physical and scientific terms; d) take into account the specifics of the subject; e) enrich the textbook with additional literature on the topic; e) the appropriateness of the student's laboratory, practical and independent work in the field of science; g) in the expression of the subject of the lesson should pay attention to the interdependence of education.

In the didactics of the lesson:

- a) The content of the lesson is clearly stated and reaches the students' minds in a consistent manner;
- b) The ideas expressed are in line with the principles of education;
- c) The lesson should be developmental and challenging;
- d) Demonstration tools for expressing the topic during the lesson; expediency of use of handouts, didactic materials and ICT;
- e) the need to pass physics experiments, laboratory work, practical assignments in a purposeful manner;
- f) Orientation to work with physics textbooks and additional literature;
- g) Laboratory-practical work and issues should be consistent with theory and practice;
- h) Attention to the fact that the lesson is conducted in a clear system leads to an increase in quality.

In general, it is worth mentioning that when preparing for a lesson in accordance with the rules, guidelines and recommendations developed by us to improve the quality of teaching physics: ekan.

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