



METHODS OF CONDUCTING AN EXPERIMENT IN PHYSICS IN A CREDIT-MODULAR SYSTEM

Ibrahimov Rahimjon

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Abstract

This article has taken an important place in the curriculum "Software Development", based on the fact that physics is primarily a fundamental science. Its main task is to contribute to the development of the content of the methodology of teaching physics.

Key words: software tools, electronic resource, animation, software package, software product, professional activity, technology, project, construction.

Introduction

Laboratory exercises in physics provide an opportunity to solve a number of scientific problems, non-traditional articles, engineering problems, introduce the methods of measuring physical solids [3].

In laboratory exercises, students are prevented from completing work, ways of achieving results, input and output diagnostics are implemented, laboratory work is protected. Figure 1 shows the content structure of the physics laboratory.

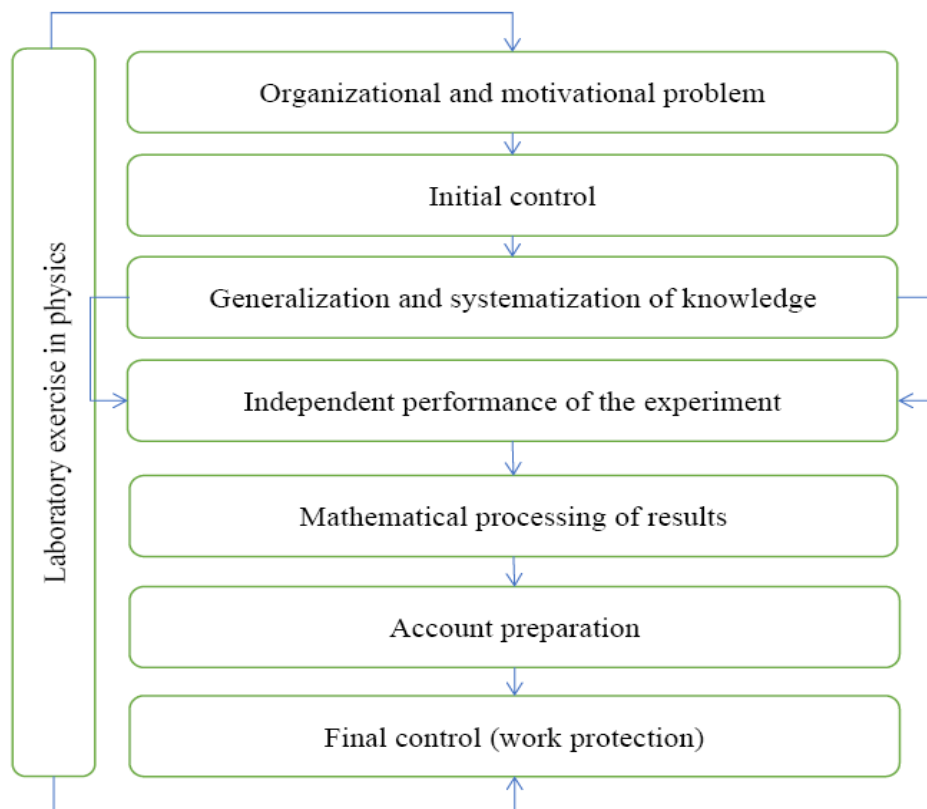


Figure 1. A meaningful block of physics laboratory training



In the first stage, the teacher prepares a theoretical instruction on the topic of laboratory work. An interview for laboratory work is made as follows:

1. *Purpose of work.*
2. *Necessary tools and equipment.*
3. *Contents.*
4. *Determination of physical quantities.*
5. *Measurement of physical quantities.*
6. *Determination of measurement errors.*
7. *Account.*

In the second step, the student receives permission from the laboratory professor-teacher, after receiving permission to do the work, he begins to do it with the participation of the laboratory assistant. The results of the experiment are included in the tables.

In the third step, the measurement results are processed, the required value is determined and measurement errors are evaluated, and then the work is shown to the professor-teacher [2].

Organization of laboratory training as mentioned above is a special feature of the physics course. Therefore, it is convenient to perform laboratory work individually. Properly organized laboratory training helps students to form a system of physical knowledge and develop their readiness for professional activities. In addition, students will acquire professional competences that will undoubtedly be useful for them in the future to develop virtual laboratories using programming languages.

Thus, content-specific and well-organized laboratory training becomes an important part of learning physics; helps ensure consistency and continuity in education; allows further development of communication between the fields of physics and engineering; contributes to the formation of technical thinking in students, conducting physical experiments, acquiring the skills of managing physical devices; Consolidation and expansion, formalization and synthesizing, consolidation of acquired physical knowledge, formation of a system of physical knowledge, and improvement of educational quality and camaraderie. In addition, meaningful and well-organized laboratory training serves to develop students' readiness for professional activities.



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