

# A Study of Difficulties Faced in Learning of Numerical Problem of Physics of Standard 9th

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**Abstract:** *The present study aims to find out A Study of “Difficulties faced in learning of numerical problem of physics of standard 9th. It is reflected in their inability to understand the subject matter content and as a result of general lack of guidelines given to students on how to solve physics problems. It is therefore recommended that students should be given the opportunity of having regular problem-solving sessions during the process of learning physics. The sample consists of 30 secondary students of the age of 14 to 16 years studying in grade 9 in Nirmala High School.*

**Keywords:** Numerical problems, physics, 9th standard students

## I. INTRODUCTION

Teaching and learning process is complex in nature and can take variety of forms. Physical presence of a student and teacher is mandatory for the whole time of study. Traditional education provides interactive relationship between student and teacher and among the students; this interaction promotes better understanding of the contents and opportunities to learning with peers. Sciences especially physics playing vital role in technological development, innovations in medical sciences of developing and developed countries in view of these vital roles, physics apparently calculation. Researchers emphasized the need of mathematics in sciences with special reference to physics are becoming indispensable.

### 1.1 NEED FOR THE PRESENT STUDY

The need of study is to find out different problem-solving skills which are clearly essential to success in a quantitative course in physics. More important, the ability to apply broad physical principles usually represented by equations to specific situations is a very powerful form of knowledge. It is much more powerful than memorizing a list of facts. Analytical skills and problem-solving abilities can be applied to new situations whereas a list of facts cannot be made long enough to contain every possible circumstance.

### 1.2 STATEMENT /TOPIC OF THE ACTION RESEARCH

A Study of “Difficulties faced in learning of numerical problem of physics of standard 9th

### 1.3 OBJECTIVES

- To identify the problem faced by learning in numerical problem
- To understand the problem faced by learning in numerical problem.
- To recognize the problem faced by learning in numerical problem.

### 1.4 SCOPE

The researcher selected the target population as students from the age of 14 to 16 years studying in grade 9 in Nirmala High School. The target population of students included both girls as well as boys living in the suburbs of Mumbai.

### 1.5 LIMITATIONS

The study has a limit of having only students from grade 9 from the SSC affiliated school. Data has been collected within the geographical boundary of suburbs of Mumbai.

### 1.6 SIGNIFICANCE

The study suggests that both the graded and the core subjects are equally important for the overall holistic development of the student. According to the study student's attendance or absenteeism in graded subjects can affect their overall growth as along with academics these graded subjects help the students develop their personality.

### 1.7 RESEARCH DESIGN FOR THE PRESENT STUDY

The design or the methodology of the research conducted is Descriptive Survey method. The method adopted by the researcher includes questionnaire developed by the researcher making it a descriptive survey method.

### 1.8 SAMPLING

Sample selected in this study were 30 students from the age of 14 to 16 years studying in grade 9 in Nirmala High School.

### 1.9 SAMPLING OF THE PRESENT STUDY

The sample selected were 30 students from the age of 14 to 16 years studying in grade 9 in Nirmala High School in Kandivali, the suburbs of Mumbai.

### 1.10 TOOLS USED IN PRESENT STUDY

Selected a questionnaire with the following 4 point grading scale:

- Strongly Agree
- Agree
- Disagree
- Strongly Disagree

### 1.11 DATA COLLECTION PROCEDURE

To find the exact causes for the problem, questionnaire was designed by the researcher. The questionnaire was prepared by keeping in mind the purpose of study. Sample were collected through questionnaire method by preparing the google form for the students of Std 9 and analysis was done of it.

### 1.12 SCORING PATTERN

The scoring pattern used by the researcher was percentage (%) for each statement as it gives a better understanding of the responses of the target population.

## II. ANALYSIS AND INTERPRETATION OF THE PRESENT STUDY

The purpose of this chapter is to analyze and interpret the data which is collected with the help of the survey. The researcher has collected data from the students studying in Nirmala High School, the suburbs of Mumbai.

The aim of the questionnaire is to know about the attendance pattern of the students in graded subjects. Under this chapter the researcher will analyze and interpret the data. The data will be analyzed with the help of the google form and will be represented in the pie chart form.

## III. FINDING

From above table summaries the interpretation about difficulties of faced in learning of numerical problem of physics to secondary school students.

students face difficulties in learning problems in physics was observed among secondary students no one was strongly disagree but most of the students are agree.

Learning numerical problems in physics requires a higher level of mathematics skills was observed among secondary students no one was strongly disagree but most of the students are agree.

#### **IV. CONCLUSION**

One can say that there is a general agreement between physics teachers and their students in these two areas. It is reflected in their inability to understand the subject matter content and as a result of general lack of guidelines given to students on how to solve physics problems. It is therefore recommended that students should be given the opportunity of having regular problem-solving sessions during the process of learning physics. Curriculum developers and science educators might also need to incorporate mathematical concepts that are useful and necessary to the understanding of physics in new physics curriculum and textbooks. It is important to note that a few specific skills might be necessary to solve one type of problem but not another problem, even though the strengths and weaknesses of a particular student remain the same, regardless of the environment. The results of this study are, in fact, consistent with other research studies on problem-solving.

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