

DIFFICULTIES THE HIGH SCHOOL STUDENTS FACE IN SCIENCE LEARNING

K. Shaila

Bharathiar University, Tamil Nadu, India

Abstract

Students in schools, especially those in high school, are acquiring more courses. However, many students find it difficult to learn science. Students find it challenging to comprehend science's abstract principles and solve problems. The teacher should pay special attention to the children who find learning science challenging. The major goal of the study is to help high school students develop a positive approach to learning science based on their level of comprehension.

Introduction

In this world, science is an important subject. No one can exist in our world without understanding of science; however students currently find it challenging to master science principles. Despite the fact that science education is very beneficial to pupils. Since science is a tool for acquiring new knowledge.

Operational Definitions

1. Challenges: a request for someone to take part in a contest or combat to determine who is stronger or more capable, as well as a request to support or justify a claim.
2. Encounter: to unexpectedly come across or go through anything challenging.
3. Student: is someone who is enrolled in school or college.
4. Learning: is the process of gaining knowledge or skills through instruction, experience, or study.
5. Science: The intellectual and practical activity covering the methodical study of the structure and behaviour of the physical and natural world via observation and experiment.

Objectives of the Study

The following goals led to the study's undertaking.

1. To determine the difficulties high school pupils have learning science.
2. To determine the percentage of difficulties high school students had learning science.

Hypothesis of the Study

A hypothesis is merely an assumption, a conjecture, or a possibility that has to be proven or refuted. However, a hypothesis is a formal query that needs to be answered for a

researcher. A statement that can be put to the test will either be proven true or false. The main goal of this study is to identify the difficulties that students have learning science at various levels, including male vs. female, rural vs. urban, and parental education.

Regarding the objective, the following hypothesis is put forth.

1. The gender, place of residence, and parental education of high school students varied significantly in their aptitude for science.
2. There are differences in the percentage of high school pupils that have difficulty mastering science.

Design of the Study

The research design used in this study is a survey one. It makes an effort to look into the degree of difficulty faced by high school students in grades 6 through 10.

Population and Sample of the Study

The population may be all the individuals of the particular type restricted part of the group. The students enrolled in government-sponsored schools in grades VI through X make up the study's population.

Research Tool

The researcher employed a self-made questionnaire tool to gather the pertinent data for this investigation.

Data Collection

The investigator after receiving proper permission from the head of the institution personally went to the schools and collected the data from 6th to 10th standard in learning science.

Statistical Technique Used

The researcher used the "t" test, the mean test, and the percentage level.

Table 1 Male Vs Female [Challenge Level]

S. No.	Category [Gender]	Mean Score	Percentage level	"t" Value	Level of Significant
1.	Male	22	55	1.05	Not significant
2.	Female	35.93	89.83		

It can be deduced from table 1 above that the calculated "t" value is 1.05 and that there is no significant value. The conclusion is that there is no difference in the degree of difficulty that male and female students face when learning science.

Table 2 Rural Vs Urban

S.NO.	Category[residence]	Mean score	Percentage level	“t” value	Level of significance
1	Rural	24	60	3.351	0.01
2	Urban	34.17	85.43		

The calculated "t" value is 3.351, which is higher than the table value of 2.58, and is significant at the 5% level, according to the above table 2. It is concluded that the challenges faced by rural residential students in learning science are different from those faced by urban residential students as a result of the research hypothesis being accepted and the null hypothesis being rejected.

Table 3 Illiterate Vs Literate

S.No.	Category[Parental Qualification]	Mean Score	Percentage Level	“t” Value	Level of Significance
1.	Illiterate	23.93	59.82	2.975	0.01
2.	Literate	35.93	89.82		

The estimated "t" value is 2.98, which is higher than the table value of 2.58 and significant at the 5% level, according to the above table 3. Therefore, both the research hypothesis and the null hypothesis are accepted. As a result, it can be said that high school students who have literate parents face different challenges than those who have illiterate parents.

Findings of the Study

1. There is no discernible difference in the difficulties that male and female students have when learning science.
2. The difficulties pupils in rural and urban settings encounter when learning science differ significantly.
3. The difficulties that students with literate and illiterate parents face when learning science differ significantly.

Solutions to the Problems with Learning Science

- Teachers need to make abstract scientific concepts accessible and easy to understand.
- Students can use the latest technology to increase their degree of scientific learning comprehension.
- The demonstrative approach can be used by the teachers in science classes.
- Students should regularly get tasks and activities relating to science.

- The importance of employing cutting-edge techniques to improve academic achievement in science-related topics.
- The capacity of ICT to improve science education.
- Large samples could be used to extend the study.

Conclusion

Currently, science concepts are essential for raising academic achievement in science-related courses. Teacher should generate positive attitude among the students in learning science courses in an effective method. We can raise the achievement level in students' advancement by applying the aforementioned cures. From this study we concluded both the male and female students facing the challenges in learning science at equal level and the rural urban students and their parents illiterates & literate facing different level of challenges in learning science subjects. Future teachers like us want to encourage students to learn about science by incorporating various cutting-edge teaching and learning strategies.

Reference

1. Andretta, S. (2005). Information literacy: A practitioner's guide. Oxford, UK: Chandos Publishing.
2. Appleyard, N., & McLean, L. (2011). Expecting the exceptional: Pre-service professional development in global education. *International Journal of Progressive Education*, 7(2), 6-32.
3. Bong, M. (2008). Effects of parent-child relationships and classroom goal structures on motivaion, help seeking avoidance and cheating. *Journal of Experimental Education*, 76(2), 191-217.
4. Mateen, M. (2019). Problems faced by students during teaching science at elementary level in private schools in karachi. *Academic Research International*, 10(4), 76-84.
5. Sadera, J. R. N., Torres, R. Y. S., & Rogayan, D. V. (2020). Challenges encountered by junior high school students in learning science: Basis for action plan. *Universal Journal of Educational Research*, 8(12A).