

A Study of Difficulty Faced by Grade Tenth Students in Understanding Chemistry

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Abstract: *Students' chemistry performance is one of the main concerns in chemistry education. Nevertheless, many students perceive chemistry as one of the difficult core subjects to be learned. This negative thinking can be due to many factors that hinder their chemistry learning. To get a better picture of the hindering elements in students' learning, this study was therefore conducted to explore the challenges, obstacles and difficulties experienced by students in the process of chemistry learning. Qualitative research using case study design was employed*

Keywords: Chemistry performance

I. INTRODUCTION

Students' chemistry performance is one of the main concerns in chemistry education. Nevertheless, many students perceive chemistry as one of the difficult core subjects to be learned. This negative thinking can be due to many factors that hinder their chemistry learning. To get a better picture of the hindering elements in students' learning, this study was therefore conducted to explore the challenges, obstacles and difficulties experienced by students in the process of chemistry learning. Qualitative research using case study design was employed. A total of 25 secondary school students comprise of form four and form two students were selected through stratified random sampling technique to complete an open ended questionnaire. The respondents were required to give their response on the challenges they encounter in learning chemistry.

Content analysis was carried out by identifying the themes as the major sources of challenges, obstacles and difficulties. The frequency and percentage for each of the identified sources of challenges, obstacles and difficulties were then calculated. Results indicated that the sources of challenges can be classified into five main themes and thirteen sub themes:

- Self-factors (negative perception, low self-regulation),
- Teachers (behaviors, practices, characteristics)
- Parents (lack of cognitive, emotional and financial support)
- Friends (negative attitudes, behaviors, lack of support) and
- Others factors (nature of chemistry and assessment pressure).

The results of this study have great implications for practitioners and also researchers in assisting students to deal with their challenges, obstacles and difficulties in daily school life specifically in learning mathematics.

1.1 IDENTIFIED PROBLEM BY OBSERVING FOLLOWINGS

Difficulties with remembering Chemical Formulae and Learning Equations, including:

- Remembering valiancy of the radicals,
- Making chemical formulae,
- Computing chemical reactions,
- Trouble in counting number of atoms in One molecule of the compound,
- Difficulty linking numbers and symbols to amounts
- Lack of use in day to day life makes it boring
- Difficulty in balancing equations.

- Difficulty in learning scientific reasons for some unfamiliar topics
- Poor visual and spatial orientation
- Difficulty immediately sorting out direction (right from left)
- Lack of practice in making and balancing equations.

1.2 PROBABLE CAUSES OF DIFFICULTY IN UNDERSTANDING CHEMISTRY

- Lack of imagination. The mind of every child is imaginative, but when it comes to understanding chemistry, this imagination takes a questionable road. ...
- Cramming over understanding the concepts....
- Not relevant to daily life. ...
- Fear of the subject. ...
- Not proper guidance

1.3 NEED OF THE PRESENT STUDY

Attention is the ability to focus on a specific task without being distracted. Attention helps students become better problem-solvers by allowing them to focus on and thoughtfully practice their developing Chemistry. Importantly, attention control often varies based on the context, including interest in the topic, task difficulty, and task duration. Hence it is necessary to see the attention problem in learning general chemistry. After knowing main issue Individual can overcome this

1.4 OBJECTIVES

The study will focus on the following objectives---

- To discover the causes behind the consideration issue in Chemistry among the class Xth students.
- To assess the attention in regard of their reacts to their provided questions.
- To build up the system for expanding the consideration dimension of the understudies.
- To empower the students to make models, formulae, form equations.
- To make the students interested by the consideration dimension of the understudies.
- To develop curiosity to ask questions during teaching learning process.
- To make them to understand the significance of the subject General Chemistry.

1.5 SCOPE OF THE PRESENT STUDY

Researcher selected the target population as students from the age of 15 to 16 years studying in grades 10h in SSC schools. The target population of students included both girls as well as boys living in the suburbs of Mumbai

1.6 LIMITATIONS OF THE PRESENT STUDY

1. Educational research are too narrow in their view and **methods**
2. They have failed to conceptualize
3. It may yield other result in another classroom
4. Lack of generalizability.

1.7 SIGNIFICANCE OF THE STUDY

The investigator did this research mainly to evacuate the attention problem in learning General Chemistry among the students of class Xth. They must be energized and commended in General Chemistry class to learn for their best success. The investigator needed the dimension of support of understudy in the class to ascend from once in a while decent to consistently incredible on the grounds that to get accomplishment in any area each understudy must be increasingly genuine mindful normal and cognizant about his study. Students who get their work done routinely and focus in the study hall show better execution in their outcome. The essential objective of investigator or researcher in this present study to advance consideration in the study of the General Chemistry Mathematics and to motivate students

to learn General Chemistry and further more to mindful them about the significance of General chemistry for improvement of the maximum capacity of each individual, groups and network in the society.

1.8 RESEARCH DESIGN:

The design of the present study is

Observation → **Pre test** → **Interview** → **Invention** → **Post test**

Observation procedure was used. Then a pre-test was conducted on the population using oral question on the basis of class topic.

Then an interview was conducted among the problem faced students.

After that intervention were implemented on the sample to eliminate the most probable causes for one month.

After one month, a pre-test was conducted on the sample using oral question on the basis of another class topic.

II. METHODOLOGY

So far as the present study concerned it is a descriptive type of study. So as to direct this study descriptive survey method was chosen as the proper one for this reason. Elucidating exploration studies have been intended to get relevant and exact data concerning the present status of wonder and at whatever point conceivable to reach legitimate general determinations from the reality found. Distinct research isn't just limited to actuality finding yet may frequently result in the detailing of significant standards and arrangement of noteworthy issue. Accordingly unmistakable technique was observed to be the reasonable for present study conducted

III. TECHNIQUES

We use quantitative techniques are- Percentage and Average

DATA ANALYSIS TECHNIQUE

- A Written Objective test was conducted among the 10 students which are inattentive in the class.
- The question paper of the interview shown in the last page. Quantitative method is used in analyze the data.
- Appropriate statistical tool and table were used to present the data in an organized way.
- Tabulation of response of interview
- Presentation of the data with the help of bar diagram showing their response in interview
- In the section of Analysis and Interpretation of Data, data were systematically presented to reflect the response of the students in interview.

IV. SUGGESTION

Attention problem in a classroom is an important problem. In the Mathematics class, to overcome this problem I suggest that teacher should motivate the students towards Mathematical topic with various life related questions. This step help students to know that Mathematics is related to our day to day life. Teacher should use various teaching aids like Mathematical model, chart etc to attract the students and activities also do in the class. I suggest the students to take participation in the Mathematical activity like fair, seminar etc.

V. CONCLUSION

There is clear evidence to suggest that action research is a valuable exercise for teacher to understand student's problem. It offers teachers a systematic collaborative and process of inquiry that actively seeks to address the issue. Through the study attempt had been analyses the specific and immediate problem faced by a pupils of VII and the factors responsible for particular problem. The study had been undertaken by understand whether the teaching strategies has been specifically designed or if any social, environment and economic factors are responsible for the cause of the specific problem. Thus, the study aimed to activity participate in the underlying situation and resolve immediate action to minimize the difficulties while simultaneously conducting the research.

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