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Effectiveness of a Programme for Teaching Selected Terms and Generalizations in the subject of Chemistry at Class-IX

Samirbhai Anvarbhai Vahora
[Research Scholar, UGC- NET & SET]P.G.Department of Education Sardar Patel University Vallabh Vidyanagar

ABSTRACT:
Without terms and generalization, can't describe basic concept of any subject.This means that there is co-ordination between concept, terms and generalizations.
We know that science has there own basic rules and methods.Using this rules and methods any problem can be easily solved in the science.
We can understand that biology, chemistry and physics is the basic structure of science.Chemistry is one of the part of this science.Study of living and non-living organism in the chemistry.Every matter has there own terms and ganeralizations.This programme of Terms and Generalizations useful for to the student's to improve and increase their level of Achievement.Also by this programme misconceptions can be minimized and decreses.Hence terms and generalizations are very useful at present time.

Keywords: Programme, Terms,Generalizations,Chemistry, Achievement

IMPORTANCE OF THE STUDY:

Importance of this study as follows.

1) With the help of this study, to check-out the effectiveness of programme of terms and generalizations in classroom and increase student's achievement level.
2) This helpful to the student's in learning chemistry with terms and generalization.
3) Researcher provides suggestions regarding how to create and sustain classroom learning environment which be helpful to learner.

STATEMENT OF THE STUDY:

The title of the present study is as given below.

''Effectiveness of a Programme for Teaching selected Terms and Generalizations in the Subject of Chemistry at Class-IX''

In this study investigator developed a programme of terms and generalization for selected units of chemistry at class IX student's.Evaluation tools is also developed by investigator and academic achievement is measured and compared with the control group.By this effectiveness of programme of terms and ganeralizations was checked.

OBJECTIVE OF THIS STUDY:

There was following objective used in this study.

1. To construct the learning programme of terms and generalizations.
2. To check-out validation of programme of terms and generalization.
3. To create post test of programme of terms and generalizations.
4. To compare effectiveness of a programme of terms & generalizations and Traditional teaching Method.

VARIABLES OF THE STUDY:

In the present study researcher were used as following variables.

1) Independent Variables: 1) Programme of Terms and Generalizations.
2) Traditional Teaching Method

2) Dependent Variables: Academic Achievement

3) Control Variables: 1) Subject-Chemistry
2) Standard-Class-IX
3) Units-4 (sem-1) Properties of Matter
4) Medium-Gujarati

HYPOTHESIS OF THE STUDY:

Researcher was being applying hypothesis related to the subject of chemistry for class-IX students.In the present study, the researcher was constructing the following hypothesis keeping the objectives of the study in mind.

'' $H0_1$ There will be no significant difference between mean score of achievement of students' in experimental group and control group''

RESEARCH TYPE, METHOD AND FIELD:

Research Type:

In this study, the result of the study found out with the help of the proper statistical techniques.so, the researcher was use **Quantitative type** of the research.

Research Method:

When the researcher wants to observe the effect of independent variables on dependent variables within certain controlled situation and experiment method is preferred. So, the researcher was use **Experimentel method** of the research.

Research Field:

In this study, the researcher constructed the programme of terms and generalizations on the selected units of Chemistry for class-IX students.So; researcher was use **Education field** of the research.

RESEARCH SAMPLE:

In the present study, the researcher were selected the sample by **convenient sampling** method out of the population**.**

From the population, only one school of Anand district was selected that was Akshar purushottam vidyamandir, Anand. Number of students as sample of the study was 100.From that 50 students were selected in experimental group and 50 students were selected in control group.

RESEARCH TOOLS:

The present study aim to examine the effectiveness of programme of terms and generalizations, the researcher measured the chemistry achievement of the subjects of the experiment.

In this regard, the investigator were developed following research tools

1. Programme of terms and genaralizations for the Properties of Matter in chemistry at class-IX students.

2. Achievement test for Properties of Matter in chemistry at class-IX students.

3. Student's reflection test for class-IX students.

RESEARCH DESIGN:

In the present study,effectiveness of programme of terms and generalizations to the teaching of ‘‘Selected Unit of Chemistry’’in science and technology of standard IX was required to be checked,so experimental research method necessary to be used.The investigator determined to select two group purposively.**Hence**,**in the present study "Experimental-Control two group only design" used**.

TABLE

"Experimental-Control two group only design"

Group	Independent Variable	Post-test
Experimental Group	X(Programme of terms & generalizations)	T2(Achievement)
Control Group	X(Traditional teaching method)	T2(Achievement)

X =Independent variable (Programme of terms and generalizations)

T2=Achievement

PROCESS OF DATA ANALYSIS:

The data collected by investigator would quantitative in nature and therefore the scheme of analysis of quantitative analysis.Collected data classified on the basis of Statistical techniques such as mean, standard deviation (SD) ,standard error difference (SED),critical ratio (t-test) = M1-M2 / SED and this statistical techniques used for the analysis of data for the sample of greater than 30.

$H0_1$ There will be no significant difference between mean score of achievement of students’ in experimental group and control group.

TABLE

“Comparison of mean scores of achievement of students’ in experimental group and control group."

Group	**M**	**N**	**SD**	**S_ED**	**t-value**	**Level of Confidence**
Experimental Group	**21.95**	**50**	**2.53**	**0.84**	**8.21**	**At 0.01**
Control Group	**15.05**	**50**	**2.76**			

The t-value according to the table is 2.06 and 2.79 for 0.05 and 0.01 level of confidence respectively.The observed t-value for the mean difference is 8.21 which is significant at 0.01 level of confidence.

Therefore,H_{01} There will be no significant difference between mean score of achievement of students’ in experimental group and control group is rejected.

RESULTS AND DISCUSSION:

There were mean scores of achievement was higher in students taught by programme of terms and generalizations than students taught by traditional teaching method.It was reveals that a programme of terms and ganeralization is more effective than traditional teaching method with respect to students’ achievement.**Its means that mean scores of achievement was higher in students ’taught by a programme of terms and generalizations than students taught by traditional teaching method.**

CONCLUSION OF THE STUDY:

From the summery of obtained results with reference to the research hypotheses of this study, there was good performance of experimental group students than control group students which reveals that the programme of terms and generalizations is more effective than the traditional teaching method. **Hence, programme of Terms and Generalizations useful for to the student's to improve and increase their level of Achievement.**

EDUCATIONAL IMPLICATIONS OF THE STUDY:

> Students can easily understand any concept of any subject by using this programme.

> Students should have learnt basic ideas of terms and generalizations and then should learn more complex ones.

> Curriculum programme should be based on programme of terms and generalizations and textbooks should be improved. So, that students' misconceptions can be minimized and decreses.

>Teacher should be aware of students' attitudes towords chemistry as a school subject and should seek ways to make students have positive attitudes.

>**Every student has their own skill. So, they can develop their own skill using this programme.**

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