IMPACT OF ACTIVITY ORIENTED HEALTH EDUCATION AMONG YOUTH

By

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ABSTRACT

The study enlightens the impact of Activity Oriented Learning in learning Health Education at primary level. Health Education was taught in various methods which were not fruitful to achieve expected level. Activity oriented method encouraged the young children to learn the health awareness quickly. The purpose of the research is to simplify the learning about Health Education in younger mind through activities. Experimental method was espoused for the study. Eighty students of standard V were selected for the study. Forty students were taken as Experimental group, another forty as Control group. Researchers self-made-Achievement test was used for the pre-test and post-test. The validity and reliability of Activity Oriented Learning were well established through this study .

Keywords: Activity oriented learning, Health Education.

INTRODUCTION

Primary Education is to be improved to achieve the goal of a Nation. After recommendations of the many commissions in India as well as constitution act, the country takes much interest in revamping the primary Education through different schemes, in which Sarva Shiksha Abhiyan has unique place, which supports to develop Primary Education through providing sufficient infrastructures, appointing adequate teachers and framing new structure in the level such as Block Resource Centre, Cluster Resource Centre and facilitating in-service programme to the teachers to make them expert in their teaching. By bringing more concentration of State Government and central Government, the status of primary Education has achieved its expected level in India. Drop out level and stagnation level are reduced and it will reach the target before 2010.

Health Education is very essential in the Primary level but it is being taught in classrooms by using traditional methods which were not fruitful. Proper strategies are not used in the classroom transactions. Activity Oriented Learning is introduced for classroom transactions which are more effective in teaching all the subjects. It reduces the stress of the teachers and ensures the quality of the learners who challenge to understand the hard spots with minimum help of the teachers. By adopting the strategy in the classroom, slow learners and under achievers attain the competency within limited time and with less strain. Designing different activities related to the ability of the learners will ensure cent percent achievement and will motivate the learners to learn in their own phase.

Significance of the Study

Primary Education concentrates on achievement of the students competency in all subjects. In Science, Health Education is given as a unit which appeared to be more problematic to the younger students due to traditional method of teaching. Students of standard V had problems in learning Health Education in Shri Narayanaguru Mission Vidyalaya, Coimbatore. The difficulties faced by the learners were assessed through previous achievement test and suggestions were given by those who were handling classes to the students. The researcher was a teacher in the school who wanted to improve the standard of learners. Hence, the researcher found out an innovative learning method, which was introduced by the SSA scheme namely, Activity Oriented Learning that provided effective teaching on Health Education in the cited school.

Review of related studies

There are few studies related to the study. Yegammai and

Nivargi's (1993) found out the Nutritional status of children, which integrated the child development scheme. Husain (1994) studied the dietic management of malnutrition in relation to the development of 130 pre school children. Purnima (1996) studied the health, personal hygiene and nutritional status of 300 rural teen age girls. The study found out that most of the girls appeared to be immunized to malnutrition.

Objectives of the Study

The objectives of the study are as follows:

1. To find out the problems of students in learning Health Education through conventional method of teaching at standard V.
2. To find out the significant difference in achievement mean score between male students who learnt through the conventional method of teaching and male students who learnt through the Activity Oriented Learning at standard V.
3. To find out the significant difference in achievement mean score between female students who learnt through the conventional method and female students who learnt through the Activity Oriented Learning at standard V.
4. To find out the significant difference in achievement mean score between male students and female students who learnt through the Activity Oriented Learning at standard V.
5. To find out the significant difference between Activity Oriented Learning and conventional method in achievement mean scores in learning Health Education at standard V.
6. To find out the effectiveness of Activity Oriented Learning in relation to pupils' achievement in Health Education at standard V.

Hypotheses of the Study

The hypotheses of the study are as follows:

1. The students have problems in learning Health Education in Science through conventional method at standard V.
2. There is no significant difference between the male students of control group (conventional method) and male students of experimental group (Activity Oriented Learning).
3. There is no significant difference between the female students of control group (conventional method) and female students of experimental group (Activity Oriented Learning).
4. There is no significant difference between the male students and female students of experimental group (Activity Oriented Learning).
5. There is no significant difference between the control group (conventional method) and experimental group (Activity Oriented Learning).
6. The Activity Oriented Learning method is more effective than conventional method for teaching Health Education.

Delimitations of the study

The responsibility of the researcher is to see that the study is conducted with maximum care in order to be reliable. However, the following delimitations could not be avoided in the present study.

1. The study is confined to 80 students of standard V studying in Shri Narayanaguru Mission Vidyalaya, Coimbatore.
2. The study included Health Education alone, and was limited to one topic in the same.
3. Since experimental design had been used, the size of the sample was limited.
4. Only the effectiveness of Activity Oriented Learning was tested in the study.
5. The study is confined to matriculation students only.
6. The study is confined to health education in the subject of science only.

Method of Study

The investigator selected the experimental study to know the effectiveness of Activity Oriented Learning in enhancing achievement in Health Education at standard V. The researcher framed as many activities such as exchanging Flash cards, exhibition, video cassettes, using flags and rotating cards, etc. Qualitative approach

was espoused in the study.

Sample selected for the Study

Eighty students of standard V learning Health Education in Shri Narayanaguru Mission Vidyalaya, Coimbatore were taken for the study.

Variables

The independent variables namely Activity Oriented Learning and sex and the dependent variable namely achievement score were used in this study.

Tool used for the Study

The investigator made use of self-made achievement test as the tool for conducting the study.

Pilot study

In order to ascertain the feasibility of the proposed research and also the adequacy of the proposed tools for the study a pilot study had been undertaken. During this pilot study the problem under study had been finely tuned.

Sufficient number of model question papers were prepared and distributed to 20 students of standard V in Shri Narayanaguru Mission Vidyalaya for the pilot study. This exercise was repeated twice over two sets of 20 students each. The clarification raised by the students were cleared then and there and the filled answer scripts were collected by the researcher.

Sample selection for pilot study

The question paper, designed for the pilot study was distributed to 20 students of standard V in Shri Narayanaguru Mission Vidyalaya, and the answer scripts were evaluated. These selected students were considered as sample of the pilot study. These students were selected in such a way that they were not part of either the control group or experimental group. The same sample was utilized for subsequent test in order to validate the tool namely the question paper for achievement test for the final study.

Reliability of the tool

A test is reliable if it can be repeated with a similar data set and yields a similar outcome. The expectation of a good research is that it would be reliable. It refers to the trustworthiness or consistency of measurement of a tool whatever it measures. The various methods used to work out the reliability of the test include split half method, equivalent or parallel form method, test retest method and Kuder-Richardson method. Under this study the reliability had been computed using test-retest method and the calculated value comes to 0.84. The value is quite significant and implies that the tools adopted were reliable. Split-half method was also used to establish reliability. The calculated reliability value of the tool is 0.89, which shows that the tool is reliable.

Validity of the tool

The concept of validity is fundamental to a research result. A result is internally valid if an appropriate methodology had been followed in order to yield that result. A test is said to be valid if it measures what it intends to measure. The expert opinion of the co-staff was obtained before freezing the design of the tools. Their opinion reinforced both content and construct validity of the proposed tool for the study. Validity, is the extent to which inferences made on the basis of numerical scores are appropriate, meaningful and useful. Subject experts and experienced teachers were requested to analyse the tool. Their opinion indicated that the tool had content validity.

Final Study

Sufficient copies of the revised tool were prepared and distributed to the selected sample of students of standard V for control group as well as experimental group.

Description of Activities used in the study

After administering the pre test, the conventional method of teaching was adopted for the control group and the researcher provided treatment through Activity Based Learning to the experimental group, who were provided with the following activities.

Activity-1

Testing the entry behaviour of the students on health awareness by questioning.

Activity-2

Designed activities on good and bad habits were practiced by using the flash cards in the classroom

transaction, which increased the interest of the learners.

Activity-3

Nutritious vegetables and grains were exhibited on the table, the researcher explained about the calories in detail and described the importance of diet for maintaining health. Picture of balanced diet was shown to the students for their ease of understanding.

Activity-4

Demonstration method also was used to describe digestive system of human beings.

Activity-5

Functioning of heart was prepared in a working model which was given to each and every student to learn by practice in the classroom.

Activity-6

Cleanliness activities were shown through flash cards and pictures.

Activity-7

Students were activated by selecting flash cards for identifying good habits and bad habits, and to understand the causes of both the habits.

Activity-8

Evaluating the learners by using testing and modifying activities.

After bestowing treatment to the experimental group, post-tests were administered to the students.

Data collection

The investigator initially gathered information from schools regarding the availability of students of standard V studying in the school. On the basis of the above criteria few schools in the locality were selected. The investigator approached the principal of Shri Narayanaguru Mission Vidyalaya, Saibaba Colony, Coimbatore. The investigator was given permission for conducting the study in the school.

A total of 80 students were selected as the sample for the study. 40 of them were considered as experimental group and the remaining 40 were considered as control group. After the teaching was over, post-test was conducted to the experimental group. Test was conducted to the control group as well. The achievement scores of both control group and experimental group were carefully collected and recorded by the investigator.

Analysis and Interpretation

The investigator used descriptive analysis and inferential analysis for analysing the data. The "t" test was used to find the significant difference between the mean scores of different groups of variables selected for the study.

Post-test was administered to 40 experimental group students of standard V. The distribution of general performance scores of the experimental group is presented in Table 2.

Alternative Hypothesis : 1

The students have problem in learning Health Education in Science through conventional method at standard V.

Table 1 indicates that at the most 25% of the students of control group scored between 41 and 50.

Table 2 indicates that at the most 32.5% of the students of experimental group scored between 81 and 90

From the percentage scores in Table 1 and Table 2, it is clear that the students of control group had problems in learning Health Education through the conventional

Class Interval (Scores)	Frequency	Percentage
11-20	3	7.5
21-30	3	7.5
31-40	5	12.5
41-50	10	25
51-60	6	15
61-70	6	15
71-80	7	17.5
Total	40	100

Table 1. General Performance Scores of ContolGroup students of Standard V in Post-test

Class Interval (Scores)	Frequency	Percentage
41-50	2	5
51-60	3	7.5
61-70	4	10
71-80	11	27.5
81-90	13	32.5
91-100	7	17
Total	40	100

Table 2. Distribution of General Performance Scores of Experimental Group (Activity Oriented Learning) students of Standard V in Post-test

method.

Null Hypothesis:2

There is no significant difference in achievement mean scores between the male students of control group (conventional method) and the male students of experimental group (Activity Oriented Learning).

To test the null hypothesis, the mean and standard deviation of the post-test scores of male students of control and experimental groups were computed. 't' test was attempted between the means of these two groups to find out the significance of difference between them. The results are given in Table 3.

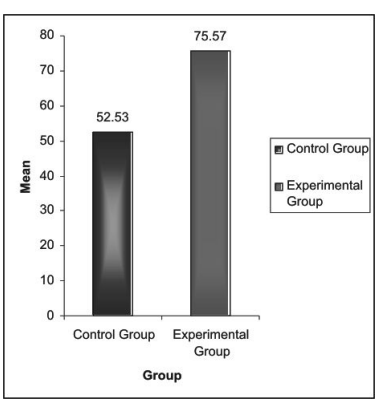
Table 3 indicates the calculated 't' value as 3.87 which is greater than the table value 2.03 at 0.05 level. Hence the null hypothesis is rejected at 0.05 significance level.

Therefore there is significant difference in achievement mean scores between the male students of control group (conventional method) and the male students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.

A graphical representation of the data is given in Graph 1.

Groups	N	Mean	SD	Df	t Value	Sigificance 0.05
Control	19	52.53	20.12	31	3.87	p<0.05
Experimental	14	75.57	14.03			

Table 3. Means and SDs of Post-test Scores of Male students of Standard V



Graph 1. Achievement Mean Scores of Control and Experimental Group Male students of Standard V

Null Hypothesis:3

There is no significant difference in achievement mean scores between the female students of control group (conventional method) and the female students of experimental group (Activity Oriented Learning).

To test the null hypothesis, the mean and standard deviation of the post-test scores of female students of control and experimental groups were computed. 't' test was attempted between the means of these two groups to find out the significance of difference between them. The results are given in Table 4

Table 4 indicates the calculated value as 6.74 which is greater than the table value 2.02 at 0.05 level. Hence the null hypothesis is rejected at 0.05 significance level.

Therefore there is significant difference in achievement mean scores between the female students of control group (conventional method) and the female students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.

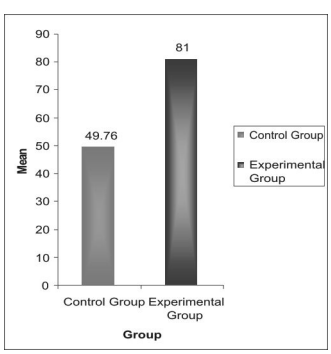
A graphical representation of this data is given in Graph 2.

Null Hypothesis:4

There is no significant difference in achievement mean scores between the male students and female students of experimental group (Activity Oriented Learning).

Groups	N	Mean	SD	Df	t Value	Significance 0.05
Control	21	49.76	16.90	45	6.74	P<0.05
Experimental	26	81.00	14.29			

Table 4. Means and SDs of Post-test Scores of Female students of Standard V



Graph 2. Achievement Mean Scores of Control and Experimental Group Female students of Standard V

To test the null hypothesis, the mean and standard deviation of the post-test scores of male and female students of experimental group were computed. 't' test was attempted between the two means to find out the significance of difference between them. The results are given in Table 5.

Table 5 indicates the calculated value as 1.15 which is less than the table value 2.02 at 0.05 level. Hence the null hypothesis is accepted at 0.05 significance level.

Therefore there is no significant difference in achievement mean scores between the male students and female students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.

A graphical representation of this data is given in Graph 3.

Null Hypothesis:5

There is no significant difference in achievement mean scores between the control group (conventional method) and experimental group (Activity Oriented Learning).

To test the null hypothesis, the mean and standard deviation of the post-test scores of control and experimental groups were computed. 't' test was attempted between the means of these two groups to find out the significance of difference between them. The results are given in Table 6.

Table 6 indicates the calculated value as 7.73 which is greater than the table value 1.99 at 0.05 level. Hence the null hypothesis is rejected at 0.05 significance level.

Therefore there is a significant difference between the control group (conventional method) and experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.

A graphical representation of this data is given in Graph 4.

Alternative Hypothesis:6

The Activity Oriented Learning method is more effective than conventional method.

Table 6 indicates that the mean value of the control group as 50.80 and that of the experimental group as 79.10

Hence the students of experimental group have outscored the students of control group in their achievement in Health Education.

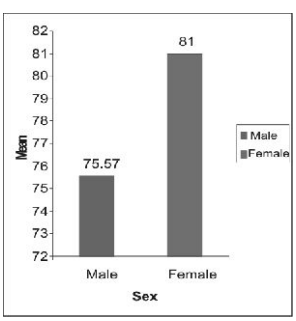
This shows that the Activity Oriented Learning is effective in enhancing achievement in Health Education at standard V.

Findings of the Study

1. The percentage scores of control group and experimental group indicate that maximum number of control group students scored between 41 and 50

Experimental Group	N	Mean	SD	Df	t Value	Significance 0.05
Male	14	75.51	14.38	38	1.15	p>0.05
Female	26	81.00	14.29			

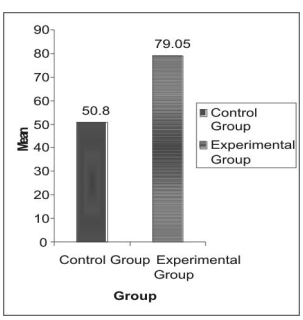
Table 5. Means and SDs of Post-test Scores of Experimental Group Male and Female students of Standard V



Graph 3. Achievement Mean Scores of Experimental Group Male and Female students of Standard V

Groups	N	Mean	SD	Df	t Value	Significance 0.05
Control	40	50.80	18.21	78	7.73	P<0.05
Experimental	40	79.10	14.37			

Table 6. Means and SDs of Post-test Scores of Control and Experimental Group students of Standard V



Graph 4. Achievement Mean Scores of Control Group and Experimental Group students of Standard V

whereas maximum number of experimental group scored between 81 and 90. Hence it implies that the students of control group had problems in learning Health Education through the conventional method.

2. There is significant difference between the male students of control group (conventional method) and male students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.
3. There is significant difference between the female students of control group (conventional method) and female students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.
4. There is no significant difference between the male students and female students of experimental group (Activity Oriented Learning) with regard to their post-test score in Health Education.
5. There is significant difference between the control group (conventional method) and experimental group (Activity Oriented Learning) with regard to their achievement mean score in Health Education.
6. The post-test scores of control group have a mean 50.80 and that of experimental group students have a mean 79.05. It shows that the performance of experimental group students is better than the performance of control group students and that the application of Activity Oriented Learning to the students of standard V is more effective than conventional method in enhancing their achievement in Health Education in science.

Conclusion

Research in any area is only a humble beginning to explore its nuances. Activity Oriented Learning is fairly a new area and full potential is yet to be realised in the field of education. Any piece of knowledge on Activity Oriented Learning is a contribution to its knowledge base. In this way, the research study of the investigator can be considered as a small but significant contribution to education. More studies in different dimensions of Activity Oriented Learning are essential to understand the value of Activity Oriented Learning.

Educational Implications

The present study has the following educational implications.

1. Activity Oriented Learning can become an effective strategy in the classroom teaching at primary level.
2. Activity Oriented Learning is effective for learning Health Education in the subject of science and related subjects.
3. Activity Oriented Learning if well planned and executed; it becomes resourceful in upper primary level also.
4. It can be extended to all categories of students at primary level.
5. Activity Oriented Learning is effective both for the slow learners as well as for the average learners.
6. Activity Oriented Learning helps a student to become self reliant and confident.
7. Activity Oriented Learning enhances the thinking capacity of the students and it helps them to develop reasoning skills.
8. Activity Oriented Learning enhances mutual understanding and cooperation among the students at all levels and all subjects.
9. It provides the chance of learning to the students in their own phase.

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Achievement test for Final study

Impact of Activity Based Learning in Health Education

Name of the Student : _____

Male / Female : _____

I.Choose and write the correct answer (*20 x 1 = 20*)

1. The major type of food we eat is

a) Protein b) Carbohydrate c) Fat

Ans : _____

2. The process of intake of air and out-flow of air is

a) Digestion b) Excretion c) Respiration

Ans : _____

3. The type of cloth we use in summer is

a) Cotton b) Wool c) Synthetic

Ans : _____

4. Number of times our heart beats per minute is

a) 65 b) 80 c) 72

Ans : _____

5. The organ which separates urine in our body is

a) Kidney b) Lungs c) Heart

Ans : _____

6. Number of teeth present in an adult person is

a) 28 b) 32 c) 30

Ans : _____

7. The organ which stores food in our body

a) Stomach b) Liver c) Intestine

Ans : _____

8. Many diseases in our body are caused by

a) Dust b) Water c) Micro organisms

Ans : _____

9. Eating chocolate cause

a) Fever b) Tooth decay c) Loose stools

Ans : _____

10. A food which gives all nutrients

a) Bread b) Milk c) Coffee

Ans : _____

11. Malaria, Chikungunya and Dengeu fever are caused by

a) House fly b) Mosquito c) Head louse

Ans : _____

12. Amount of blood present in an average person is

a) 4-5 Litres b) 5-6 Litres c) 3-4 Litres

Ans : _____

13. The amount of water that we should drink daily is

a) 5-6 tumblers b) 4-5 tumblers c) 7-8 tumblers

Ans : _____

14. Vitamin we get from orange, lemon fruit is

a) Vitamin A b) Vitamin D c)Vitamin C

Ans :_____

15. Normal temperature of human body is

a) 98.4° F b) 96.4° F c) 94.6° F

Ans :_____

16. Number of bones present in the human body is

a) 215 b) 206 c) 210

Ans :_____

17. The vitamin we get from the sunlight is

a) Vitamin B b) Vitamin D c) Vitamin E

Ans :_____

18. The digestion of food starts from

a) Stomach b) Mouth c) Intestine

Ans :_____

19. The organ which pumps blood is

a) Lungs b) Kidney c) Heart

Ans :_____

20. The part of our body which gets affected by Polio

a) Heart b) Central nervous system

C) Digestive system

Ans :_____

II.Match the following (*10 x 1 = 10*)

A		B	Answers
1. Green leafy vegetables	-	skin disease	_____
2. Cereals	-	Fungus	_____
3. Obesity	-	Tongue	_____
4. Organ of vision	-	Ear	_____
5. Cutting teeth	-	Easily digestable	_____
6. Taste	-	Eye	_____
7. Voice box	-	Canine	_____
8. Scabies	-	Food grains	_____
9. Dandruff	-	Over weight	_____
10. Balance of body	-	Adam's apple	_____
	-	Incisors	_____

III.Tick (✓) True or False (*10 x 1 = 10)*

1. We swallow food without chewing _____
2. We drink water in between we eat _____
3. Wash hands and mouth before and after eating food _____
4. We should take bath soon after we eat food _____
5. Apply ice-cubes in order to stop bleeding _____
6. We should talk while eating _____
7. We should take bath daily _____
8. We should cut our nails regularly _____
9. We use cotton clothes during winter _____
10. We eat food which is kept open _____

IV.Fill in the blanks 10 x 1 = 10

1. In order to avoid constipation we should eat food rich in _____.
2. The diet which contains all nutrients is called _____ diet.
3. The disease we get after a bite from a mad dog is_____.
4. The hardest part of our body is _____.
5. The process by which continuity of species takes place is _____.
6. Physical exercise is good for _____.
7. Fever, yellow urine, body pain with vomiting are the symptoms of the disease _____.
8. The largest gland present in our body is _____.
9. The first vaccine given to a new born baby _____.
10. The process of food break down which takes place in the stomach is called _____.

ABOUT THE AUTHOR

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Dr. G. Singaravelu is specialized in primary education. He got NCERT award for his innovative gadgets used in mathematics and trained more than two thousand teachers in Activity Based Learning. He has published three books titled, English Education, Primary Education and Micro Teaching in English.