

# Effectiveness of an Integrated HIV/AIDS Education Program

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## **Abstract:**

*The present paper studied the effectiveness of an integrated HIV/AIDS education program (iHAEP) carried out on students of std. VII and VIII from Mumbai. The HIV/AIDS education program used English and Math as a medium to sensitize the students in their early teens to the issue of HIV/AIDS. In this investigation, effectiveness of iHAEP is as measured by the awareness and attitude of students towards the HIV/AIDS issue, students' behaviour intentions and students' general reaction to the HIV/AIDS education program. The Quasi-Experimental Pre-Test Post Test Non-equivalent Group Design was used for the study. The Quantitative Analysis, used to study the level of awareness and attitude of students to HIV/AIDS, employed descriptive analysis of the data by finding the measures of central tendency, std. deviation, skewness and kurtosis and the inferential techniques used for testing the hypotheses in*

*the study are parametric tests such as t – Test and Split Plot ANNOVA. The Qualitative*

*Analysis was employed to study the students' behaviour intentions and students' general reaction to the iHAEP. The findings of the study and the overall experience during the intervention makes the researcher hopeful that such initiatives will serve as an impetus to the teaching fraternity to take up health education projects in schools and colleges.*

**Key Words:** Integrated, HIV/AIDS Education program (iHAEP), Sensitize, Effectiveness.

## **INTRODUCTION**

Good health is one of the most important factors for a happy and productive life. And yet, many people do not have access to health care and live in conditions that spread disease. As a consequence the world is rampant with different diseases, resulting in substantial socio-economic impacts of diseases through loss of work, disrupted school attendance and medical costs. Diarrhoea accounts for the

annual loss of around 62 million DALYs (disability-adjusted life years), Malaria leads to a loss of 47 million DALYs and tuberculosis 35 million DALYs per year (WHO, 2004)<sup>3</sup>. Where DALYs is a standard measure of the burden of disease calculated from the number of years of productive life lost due to illness and premature mortality (WHO, 2004)<sup>2</sup>.

Another disease of major concern globally is HIV/AIDS which causes productive life loss of 58.5 million DALYs <sup>4</sup>per year. In 2010 it was estimated that there were 34 million people living with HIV globally of which 3.4 million were children (< 15 years of age), 3 million had died with AIDS and a total of 15 million children who had lost one or more parent to AIDS. Yet, most of the times AIDS is seen as a disease which has no cure, a disease which affects another section of population or a ultimate fatal physical ailment and one which has to be accepted as ill fate of the person affected. The impact HIV/AIDS has on the personal, social, economic front is hardly perceived. As a result of the lack of this understanding about HIV/AIDS, it does not cause an alarm. There is a need to create an awareness of HIV/AIDS among all people of all ages.

An understanding of health is basis of all health care. Health education is the most important aspect in terms of prevention of diseases. Health education is integrated part of prevention oriented approach to health and disease problems. The present study is in the area of health education with a focus on HIV/AIDS education.

### **Need for the study:**

HIV/AIDS pandemic is a threat to humankind and we need to be prepared for it. Health Education is just one way of imparting knowledge about the HIV/AIDS issue to the children. We need to make the students aware of the physical, psychological, social, economic consequences of certain unsafe behaviours on individuals. So that the development of the right attitudes to the HIV/AIDS issue and the behaviours associated with the issue is possible, which in turn will lead

to the intention to act (or not to act as the case may be) subsequently resulting in behaviour changes.

World over there is a consensus that schools and colleges must take the initiative of promoting health education programs to fight such diseases. To meet this end, teachers have to take the initiative in developing the right skills, building the right attitude and generating right behavioural intentions amongst their own students to fight diseases like HIV/AIDS. Thus there is a dire need to develop a program and test its effectiveness to generate sensitivity to the issue of HIV/AIDS in students.

With issues like HIV/AIDS it is necessary that an action element in the curriculum is introduced, that will bring about attitudinal and behavioural change, and students do not just study about the issue for the sake of examinations. The subjects when taught must get translated in to right behaviours by the students. So there is a need to develop such participatory programs that will enthuse and encourage students to take informed action.

There have been a number of health education programs which have been tried out but it is necessary that the HIV/AIDS education program should not be an add-on to the already loaded curriculum. Such a program needs to be integrated within the existing school curriculum and through the subjects that are taught in the schools so that it becomes a sustainable program.

The review of related literature shows that there is not much research in the area of health education, particularly integrated HIV/AIDS education programs in India, however the small number of research studies that are available strongly suggest that there have to be health education programs for schools designed with an action element to create right attitude towards HIV/AIDS issue.

Moreover studies also show that the program for HIV/AIDS awareness have to start early

in schools and not after the students are in their mid-teens as has been the case in many of the programs implemented in our country. This situation demands an integrated program for students who would enter the teenage.

**The study addressed the following significant questions:**

1. What do the students of VII and VIII (students entering the teens) know about HIV/AIDS?
2. What is their understanding of the HIV/AIDS issue?
3. Is it possible to develop an integrated program for sensitizing students to the issue of HIV/AIDS?
4. Is there a scope of integrating HIV/AIDS awareness through the existing secondary school curriculum of Mathematics and English Language?
5. Is it possible to develop an effective program for sensitizing students of VII & VIII to HIV/AIDS through Mathematics and English language?
6. How effective will such an integrated program be in terms of awareness, attitudes and behavioural intentions?
7. What is the effect of such a program on the students' performance in Mathematics and English?

**PROBLEM**

“An Investigation of the Effectiveness of using Mathematics and English as a medium to sensitize students of standard VII and VIII to HIV/AIDS”

**AIMS OF THE STUDY:**

1. To study the effectiveness of the integrated HIV/AIDS education program (iHAEP) in terms of:
  - the level of awareness of HIV/AIDS (knowledge and understanding) ,
  - attitudes towards HIV/AIDS and

- behavioural intentions for the prevention of HIV/AIDS, among students of std.VII and std. VIII.
2. To study the overall reaction of students to the integrated HIV/AIDS Education Program.

**OBJECTIVES OF THE STUDY:**

1. To develop an integrated HIV/AIDS Education Program (iHAEP) to sensitize students of VII & VIII to the issue of HIV/AIDS using Mathematics and English as a medium.
2. To study the pre-test scores of the experimental and control groups on:
  - a. Awareness of HIV/AIDS among students of std.VII and std. VIII.
  - b. Attitude towards HIV/AIDS among students of std.VII and std. VIII .
3. To study the pre-test scores of the boys girls of the experimental group on:
  - a. Awareness of HIV/AIDS among students of std.VII and std. VIII
  - b. Attitude towards HIV/AIDS among students of std.VII and std. VIII.
4. To compare the pre-test scores of Experimental and control groups on:
  - (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
  - (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
5. To compare the pre-test scores of the boys and girls of experimental group on:
  - (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
  - (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
6. To study the post-test scores of the experimental and control groups on:
  - (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
  - (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
6. To study the post-test scores of the boys and girls of the experimental group on:

- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
7. To compare the post-test scores of Experimental and control groups on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
8. To compare the post-test scores of boys and girls of the experimental group on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
9. To compare the net gain scores (difference in post test scores and pre-test scores) of Experimental and control groups on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
10. To compare the school achievement in Mathematics and English between the Experimental and control group (pre and post intervention stage.)
11. To analyse the students behavioural intentions with regards to HIV/AIDS issue after the integrated HIV/AIDS Education Program.
12. To study the students overall reaction to the integrated HIV/AIDS Education Program.

## HYPOTHESES OF THE STUDY

1. There is no significant difference in the pre-test scores of Experimental and control groups on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
2. There is no significant difference in the pre-test scores of the boys and girls of the experimental group on:

- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
3. There is no significant difference in the post-test scores of Experimental and control groups on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
4. There is no significant difference in the post-test scores of the boys and girls of the experimental group on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
5. There is no significant difference in the net gain scores (difference in post test scores and pre-test scores) of Experimental and control groups on:
- (a) Awareness of HIV/AIDS among students of std.VII and std. VIII
- (b) Attitude towards HIV/AIDS among students of std.VII and std. VIII
6. There is no significant difference in the school achievement in Mathematics and English between the Experimental and control group after the intervention.
- To study the students' behavioural intentions with regard to HIV/AIDS issue and the students' general reactions to the programme (iHAEP) the qualitative analysis was used and the research questions formulated for the same were:

- What are the behavioural intentions revealed by the students in this study with regards to HIV/AIDS issue at the social level?
- What are the behavioural intentions shown revealed by the students with regards to HIV/AIDS issue at the personal level?
- What are the students' general reactions to the iHAEP ?
- What are the students views regarding the integration of global issues like HIV/AIDS in the curriculum?

## VARIABLES OF THE STUDY

### Independent Variables: Teaching Strategies

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- a. Integrated HIV/AIDS education program for sensitizing students of VII & VIII to the issue of HIV/AIDS using Maths and English as a medium.
- b. Traditional Teaching Method.

### Dependant Variables:

- a. Awareness about HIV/AIDS
- b. Attitude towards HIV/AIDS
- c. Behavioural intentions for the prevention of HIV/AIDS,
- d. School Achievement Tests in Mathematics & English.
- e. Students' general reaction to the integrated HIV/AIDS Education Program.

## SIGNIFICANCE OF THE STUDY

The study will help to understand the current level of awareness of students to the HIV/AIDS issue and raise the same in such a way that students develop the right attitudes and become sensitive to the HIV/AIDS issue. It will help to develop caring attitudes among the students for people living with AIDS and students will also develop the ability to take informed actions in real life situations.

Further, the study will enable young students to recognize their role as empowered citizens in a world threatened with various pandemics, to engage critically with health issues and enhance their understanding of the critical health issues like HIV/AIDS that impact lives.

The results of the study will be significant in developing a consensus on the importance of integrated health education programs in

schools and help as a decisive factor to make policy changes in the curricula for secondary education to meet the needs of the world exposed to various pandemics. These findings will act as a pointer to understand the kind of support system we would need to give teachers in order to equip them to prepare young children to face the health related challenges of this world. Thus the study will be a significant step towards combating HIV/AIDS through education in schools and will provide practical and possible intervention program that is integrated and hence feasible and sustainable.

### Methodology

The present study is a developmental research as well as an experimental research. In this study the focus is to develop the 'HIV/AIDS Education Program (iHAEP)' (The researcher used the ADDIE model of Instructional Design for the development of the integrated HIV/AIDS Education Program) and Experimental Research because the study focuses on establishing the cause-effect relationship between the cause, independent variable and the effect, dependant variables.

This study focussed on developing an effective HIV/AIDS Education program for early teens. The program was integrated to the existing curriculum in schools and used the transitional integration model using the interdisciplinary approach. It was based on the belief of the researcher (belief was further substantiated by the Health behaviour theories like Health Belief model, Protection Motivation Model, Theory of Reasoned Action, Theory of Planned Behaviour and Social Cognitive Theory) that for any health education program to be successful, resulting in positive behavioural changes, the program needs to address the issue holistically by creating awareness (develop action oriented knowledge and understanding) regarding the issue and it should emphasize on building required skills, the right beliefs and attitudes. This is possible only if the program includes the social, political, economical and psychological aspects associated with the

issue. Only the right attitudes will result in intentions to perform the behaviour which is the pre-determinant of behaviour.

This study aimed to develop an integrated HIV/AIDS Education Program to bring about positive behavioural changes by developing positive attitudes and beliefs, in students, regarding the HIV/AIDS issue so that they are capable of taking conscious informed decisions for the prevention of HIV/AIDS.

Such a program needs to be sustainable and for the same the researcher used the Javed Mustafa's transitional model of curriculum integration. This model helped to develop the students' awareness and understanding about HIV/AIDS issues and its implications through the existing school curricula of Math and English. The researcher had envisaged an integrated HIV/AIDS program so as to make it easily acceptable by teachers as such an integrated program would not require additional time from the subject teachers but would help in sensitizing students to the HIV/AIDS issue while the students were taught their respective subjects. Referencing of books and websites browsing gave creative ideas about activities to be included in the integrated program. The program evolved as a result of discussion with psychologists, health care professionals, teacher educators, HIV/AIDS education trainers experienced teachers and teenagers. The general classroom problems faced by the teachers in class while handling such topics were also considered.

Review of literature and discussions with experts helped in planning and selection of activities for integrating the HIV/AIDS issue in the curriculum of Mathematics and English of Standard VII and VIII. Discussions with subject method masters and senior teachers helped in finalization of topics in both the subjects where the issue could be easily integrated. The strategies and teaching techniques were identified and the lesson plans prepared. The time schedule for the lessons was planned with the help of co-operating schools in such a way that it did not disturb the school schedule much.

### **Implementation of the iHAEP:**

The integrated HIV/AIDS Education program was implemented in the three schools by the researcher as per the schedule that was prepared for the same. It was spread over a period of 2.5 months, the pre-test and the post-test were delivered before and after the program.

### **Evaluation of the iHAEP:**

The program was evaluated periodically by the researcher through informal discussions and talks with students and the researchers' observations regarding the participation levels of the students in the program. It was observed by the researcher that the students eagerly looked forward for the arrival of the researcher to carry out the program on the scheduled days. They were very enthusiastic about the various activities of the program particularly the stories, the poems, the TASO game etc. They appreciated the inter-personal and interactive sessions. The researcher also realized that some of the students had got quite close to the researcher and had come forward to share their anxieties. On the whole there was general curiosity and motivation towards the program

The summative evaluation of the program was conducted to see whether the iHAEP had any effect on the level of awareness, attitudes towards HIV/AIDS and the behavioural intentions of the students. This part of the research was related to the study of the effectiveness of the program to sensitize students to HIV/AIDS, so it is an experimental research. The researcher followed all the steps of conducting an experimental research.

**Research Design:** The purpose of the research was to study the effectiveness of the integrated HIV/AIDS program. Therefore the researcher used the Quasi-Experimental Pre Test Post Test Non-equivalent Group Design.

It is represented as:

Experimental    O<sub>1</sub> X O<sub>2</sub>  
 Control        O<sub>3</sub> C O<sub>4</sub>

**Sample:** The sample selected for the purpose of the study consists of students studying in class VII and VIII of Mumbai schools following the State Board syllabus.

**Sampling Technique:** In the present study, the method adopted is the convenience sampling for the selection of the schools and the assignment of the groups was randomized.

**Size and Composition of the Sample:**

Description	Number	%
No. of students included in the study	752	100.00
No. of incomplete forms discarded	31	4.17
Final sample size for the study	721	96

TABLE 1: Final Sample Size

Sr.No	Name of school	No. of sts.	Expt. Group	Control Group
1	Children's Academy	201	105	96
2	Thakur Vidya Mandir	390	193	197
3	Pal Rajendra School	130	65	65
		721	363	358

TABLE 2: Nature and Size of the Sample

**Tools Used:**

The following are a list of researcher made tools, which have been employed by the researcher in the process of data collection:

1. Test on awareness about HIV/AIDS.

2. Test of Attitudes towards people living with HIV/AIDS.
3. Situation based test to know the behavioural intentions
4. A tool to study student's opinions regarding the intervention.

School Achievement scores from the school records (cumulative record cards) for the two subjects.

**Analysis & Interpretation of Data**

The data collected was scored and subjected to appropriate statistical analysis. The data was analyzed using descriptive statistics measures of Central tendency, variability, skewness and kurtosis. The inferential techniques used for testing the hypotheses in the study are parametric tests such as t - test and Split Plot ANNOVA.

Testing of Hypotheses No.1 &3:

1. There is no significant difference in the pre-test scores of Experimental and control groups on: a) Awareness of HIV/AIDS among students of std.VII and std. VIII

(b) Attitude towards HIV/AIDS among students of std.VII and std. VIII

3. There is no significant difference in the post-test scores of Experimental and control groups on: (a) Awareness of HIV/AIDS among students of std.VII and std. VIII

(a) Attitude towards HIV/AIDS among students of std.VII and std. VIII

Table 3:'t' value for Scores on Awareness & Attitude towards HIV/AIDS Pre &Post Intervention of Experimental and Control group

Hypothesis no.	Variable	Experimental Group	Control Group	t-stat	T-critical	Conclusion	Remark

1.a.	HIV/AIDS Awareness Pre-test	M=11.45 N=363	M=11.08	1.62	1.96	Not Significant	Groups are equal
1.b	Attitude towards HIV/AIDS	M=81.55 N=363	M=78.71 N=358	3.28	1.96	Significant	Groups are not equal
3a.	HIV/AIDS Awareness Post-test	M=19.24 N= 363	M=12.92 N= 358	27.14	1.96	Significant	Groups are not equal
3b.	Attitude towards HIV/AIDS	M=98.08 N= 363	M= 78.47 N= 358	21.55	1.96	Significant	Groups are not equal

Testing of Hypotheses No.2 &4:

- There is no significant difference in the pre-test scores of the boys and girls of the experimental group on:
  - Awareness of HIV/AIDS among students of std. VII and std. VIII
  - Attitude towards HIV/AIDS among students of std. VII and std. VIII
- There is no significant difference in the post-test scores of the boys and girls of the experimental group on:
  - Awareness of HIV/AIDS among students of std. VII and std. VIII
  - Attitude towards HIV/AIDS among students of std. VII and std. VIII

Table 4:'t' value for Pre &Post Test Scores of Awareness & Attitude towards HIV/AIDS of Boys and Girls of Experimental Group

Hypotheses No.	Variable	Boys	Girls	t-stat	T-critical	Conclusion	Remark
2.a	HIV/AIDS Awareness Pre-test	M=11.62	M=11.22	1.35	1.97	Not Significant	Groups are matched

2.b	Attitude towards HIV/AIDS	M=81.36	M=81.8	0.40	1.97	Not Significant	Groups are matched
4.a	HIV/AIDS Awareness Post-test	M=19.32	M=19.13	0.54	1.97	Not Significant	Groups are matched
4.b	Attitude towards HIV/AIDS	M=98.28	M=97.81	0.39	1.97	Not Significant	Groups are matched

Testing of Hypothesis 6

There is no significant difference in the school achievement in Mathematics and English between the Experimental and control group before the intervention and after the intervention.

Table 5:'t' Value of School achievement in Mathematics & English Pre-intervention and Post-intervention of students of the Experimental Group

Hypotheses No.	School	Subject	Pre-intervention	Post-intervention	t-stat	Critical t-value	Conclusion	Remark
6.a	1	Math	M=26.51	M=37.31 N=105	5.61	1.97	Significant at 0.05	Significant Difference in achievement
	2		M=47.5	M=48.29 N=103	0.49	1.97	Not Significant	No Signi. Diff. in achievement
	3		M=55.43	M=57.62 N=65	0.78	1.98	Not Significant	No Signi. Diff. in achievement



6.b	1	English	M=34.84	M=36.91	N=105	1.57	1.97	Not Significant	No Signi. Diff. in achievement
	2		M=40.17	M=50.47	N=103	6.87	1.98	Significant	Significant Diff. in achievement
	3		M=49.57	M=51.18	N=65	0.79	1.98	Not Significant	No Signi. Diff. in achievement

From the profile plot it is clear that the control group shows a small difference or a marginal increase in the awareness scores on the post test while the experimental group shows a substantial increase from the pre-test scores to the post test scores.

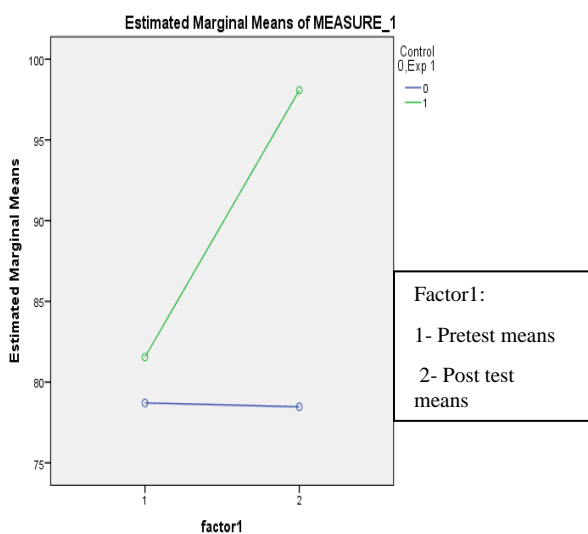
To know whether the difference of difference is statistically significant the F values were obtained by SPSS

### Split Plot ANOVA for HIV/AIDS Awareness net gain Scores on the Experimental and Control Group for total Sample

Testing of hypothesis 5:

5. There is no significant difference in the net gain scores (difference in post test scores and pre-test scores) of Experimental and control groups on:
  - a. Awareness of HIV/AIDS among students of std.VII and std. VIII
  - b. Attitude towards HIV/AIDS among students of std.VII and std. VIII

For testing the hypothesis 5 the Split plot Anova was used. The profile plots obtained were as follows:



Means associated with controlled group and experimental partitioned across time (pre and post test)

Descriptive Statistics					Box's Test of Equality of Covariance Matrices	
	0 Contr . 1 Exp.	Mean	Std. Dev.	N	Box's M	44.472
Aware-ness 1	0	11.08	3.299	358	F	14.779
	1	11.45	2.797	363	df1	3
	Total	11.26	3.061	721	df2	93620465
Aware-ness 2	0	12.92	2.893	358	Sig.	.000
	1	19.24	3.347	363	Tests the null hypothesis that observed covariance matrices of the dependent variables are equal across groups.	
	Total	16.1	4.449	721		

Measure: MEASURE_1 Tests of Within-Subjects Effects						
Source	Type III Sum of Squares	df	Mean Square	F	Sig.	
factor1	Sphericity Assumed	8359.69	1	8359.69	2522.37	0.000
	Greenhouse-Geisser	8359.69	1	8359.69	2522.37	0.000
	Huynh-Feldt	8359.69	1	8359.69	2522.37	0.000
	Lower-bound	8359.69	1	8359.69	2522.37	0.000

factor1 * GROUP	Sphericity Assumed	3190.338	1	3190.338	962.59	0.000
	Greenhouse-Geisser	3190.338	1	3190.338	962.59	0.000
	Huynh-Feldt	3190.338	1	3190.338	962.59	0.000
	Lower-bound	3190.338	1	3190.338	962.59	0.000
Error(factor1)	Sphericity Assumed	2383.006	719	3.314		
	Greenhouse-Geisser	2383.006	719	3.314		
	Huynh-Feldt	2383.006	719	3.314		
	Lower-bound	2383.006	719	3.314		

a. Computed using alpha = .05

**Interpretation: Box’s test:** This shows that the covariance between the two groups measured is the same between the pre-test and the post test.

**Interpretation of F obtained from the Post-Prefactor by group interaction: (Test of Within Subjects Effects)**

The obtained F value is 2522.37 and is significant at less than 0.001 level which shows both the groups combined have increased performance in the post test as against the pretest.

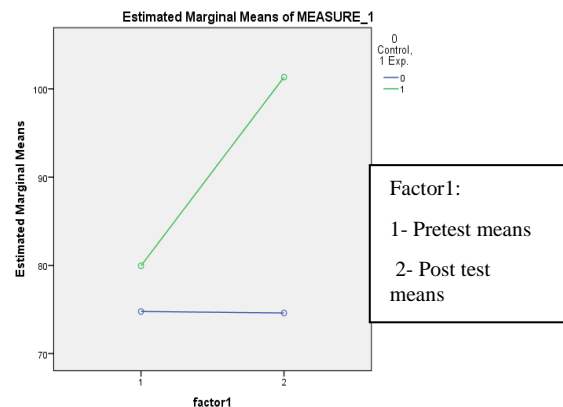
The pre-post factor\* group interaction was checked for significance (which is the pre-post difference by group interaction). This has to be significant for there to be a significant difference in the net gain scores of the Experimental and control group.

In this case the F-value of 962.59 obtained is significant at less than 0.001 level which shows that the experimental group improved significantly more than the control group. Hence the null hypothesis is rejected.

**Inference:** There is a significant difference in the net gain scores of HIV/AIDS awareness of the experimental group and control group for the total sample. Though both the groups

have shown improvement in the post tests scores over the pre-test scores, the experimental group shows a marked increase than the control group. The higher net gain in the experimental group may be attributed to intervention.

**HYPOTHESIS 5b**



From the profile plot it is clear that the control group shows a small difference or a marginal increase in the scores of attitude towards HIV/AIDS at the post test while the experimental group shows a substantial increase from the pre-test scores to the post test scores for total sample.

To know whether the difference of difference is statistically significant the F values were obtained by SPSS

**Split Plot ANOVA for Attitude towards HIV/AIDS net gain Scores on the Experimental and Control Group for total sample.**

Means associated with controlled group and experimental partitioned across time (pre and post test)

Descriptive Statistics					Box's Test of Equality of Covariance Matrices	
	0:Control 1:Exp	Mean	Std. Deviation	N	Box's M	538.732
Pre	0	78.71	12.79	358	F	179.036
	1	81.55	10.32	363	df1	3
	Total	80.14	11.69	721	df2	93620465
Post	0	78.47	13.07	358	Sig.	0

	1	98.08	11.29	363	Tests the null hypothesis that the observed covariance matrices of the dependent variables are equal across groups.
Total		88.34	15.65	721	

Means associated with controlled group and experimental partitioned across time (pre and post test)

Tests of Within-Subjects Effects						
Source		Type III Sum of Squares	df	Mean Square	F	Sig.
factor 1	Sphericity Assumed	23919.07	1	23919.07	951.845	0.000
	Greenhouse-Geisser	23919.07	1	23919.07	951.845	0.000
	Huynh-Feldt	23919.07	1	23919.07	951.845	0.000
	Lower-bound	23919.07	1	23919.07	951.845	0.000
factor 1 * Group	Sphericity Assumed	25350.65	1	25350.65	1008.814	0.000
	Greenhouse-Geisser	25350.65	1	25350.65	1008.814	0.000
	Huynh-Feldt	25350.65	1	25350.65	1008.814	0.000
	Lower-bound	25350.65	1	25350.65	1008.814	0.000
Error (factor 1)	Sphericity Assumed	18067.86	719	25.129		
	Greenhouse-Geisser	18067.86	719	25.129		
	Huynh-Feldt	18067.86	719	25.129		
	Lower-bound	18067.86	719	25.129		

**Interpretation: Box’s Test:** This shows that the covariance between the two groups measured is the same between the pre-test and the post test.

**Interpretation of F obtained from the Post-Prefactor by group interaction (Test of Within Subjects Effects)**

For total sample the obtained F value is 951.845 and is significant at less than 0.001 level which shows both the groups combined have increased performance in the post test as against the pretest.

The pre-post factor\* group interaction was checked for significance (which is the pre-

post difference by group interaction). This has to be significant for there to be a significant difference in net gain scores of the Experimental and control group.

In this case the F-value of 1008.814 obtained is significant at less than 0.001 level which shows that the experimental group improved significantly more than the control group. Hence the null hypothesis is rejected.

**Inference:** There is a significant difference in the net gain scores of attitude towards HIV/AIDS of the experimental group and control group of total sample. The experimental group shows marked improvement in the post tests scores over the pre-test scores while the control group shows a slight drop. The higher net gain in the attitude towards HIV/AIDS issue of the experimental group of total sample is attributed to intervention.

**Qualitative Analysis:**

**The steps followed for qualitative analysis were** Typology -Thematic analysis for recurring patterns, Coding, Constant Comparison/Grounded Theory and Quasi Statistics (count the % of times something is mentioned, like a rough estimate of frequency), Analytic induction

Meaningful interpretation and corroborating the conclusions with prior research and literature .

**Behavioural Intentions:**

- What are the behavioural intentions shown (revealed) by the students with regards the HIV/AIDS issue at the social level?

From the data it was clear that majority of the students’ ie.86% of the students of the experimental group expressed positive or favourable behavioural intentions and only

4% exhibited unfavourable behavioural intentions while 10% remained neutral to carry out actions at the social level.

A large percentage of students have expressed positive behavioural intentions in social situations inspite of having to take personal risk. As per the Theory of Reasoned Action and Theory of planned Behaviour this indicates that there is a better chance that these students will carry out their intentions when the opportunity arises in real life.

Thus there is a favourable change in behaviour of the students to prevent and mitigate the spread of HIV/AIDS which is an indicator of the effectiveness of the intervention ( iHAEP).

- What are the behavioural intentions shown (revealed) by the students with regards the HIV/AIDS issue at the personal level?

The situation based test had four situations to understand the behavioural intentions of the students for actions to be taken at personal level. The responses of the students were analyzed as favourable behavioural intention, neutral behavioural intention and unfavourable behavioural intention. From the data it was clear that majority of the students' ie.84% of the students of the experimental group expressed positive or favourable behavioural intentions and only 4% exhibited unfavourable behavioural intentions while 12% remained neutral to carry out actions at the social level.

A large percentage of students have expressed positive behavioural intentions at personal level. As per the Theory of Reasoned Action and Theory of planned Behaviour this indicates that the students will carry out their intentions when the opportunity arises in real life. Thus there is a favourable change in behaviour of the students to prevent and mitigate the spread of HIV/AIDS which is an indicator of the effectiveness of the iHAEP.

### **Programs students would like to be undertaken for Prevention of HIV/AIDS**

- What programs should be held in the schools to promote HIV/AIDS awareness?

Almost all the students felt that schools should conduct awareness program for HIV/AIDS awareness. 37% students felt that schools conduct educational program like lectures, workshops, seminars, provide knowledge and information through leaflets etc.32% of students would like schools to hold Skits / Dramas/ Street Plays/ Posters/ Drawing Competitions.16% would like schools to conduct Awareness camps/Rallies/Campaign and 15% students want schools to hold Visits/Trips to hospitals to meet HIV/AIDS patients.

The responses of the students regarding programs that schools should undertake reflect an emphasis on knowledge and understanding of the issue through lectures, workshops, seminars, leaflets. The other programs suggested such as Skits / Dramas/ Street Plays/ Posters or Drawing followed by holding of rallies, camps and trips and visits to meet persons living with AIDS that have been identified which indicates that students desire programs that evoke empathy and sensitivity.

This finding corroborates with the curriculum theory which provides the framework for health education and says that declarative knowledge, procedural knowledge and attitudes, values, beliefs, habits of mind all need to be transacted in the school. In fact the iHAEP incorporated all of them and this must have resulted in students identifying these programs as significant.

- What programs would the students like to conduct personally to promote HIV/AIDS awareness?

Almost all the students were keen to conduct awareness program for HIV/AIDS

awareness. 42% students felt that they were keen to attend educational program like lectures, workshops, seminars. 26% of students would like to hold Visits/Trips to hospitals to meet HIV/AIDS patients, 20% were keen to hold Skits / Dramas/ Street Plays/ Posters/ Drawing Competitions and 12% would like to conduct Awareness camps/Rallies/ Campaign.

The responses of the students regarding programs they would like to personally carry out to promote HIV/AIDS Awareness indicate their readiness to enhance their own knowledge and understanding of the issue. Their willingness to participate in Skits / Dramas/ Street Plays/ make Posters or Drawing and holding of rallies, camps indicate their inclination towards active citizenship.

### **Students' general reaction to the program**

- What are the students' general reactions to the iHAEP?

The students were asked to describe the program in terms of one word that came first in their mind regarding the program and their responses were analyzed.

Almost all students answered the questions with different adjectives to describe the program. 100% of student responses used positive words to describe the program. The describing words were grouped in five categories based on the nature of the response. 39% of the students used superlatives to describe the program while 24% used words which showed that the program was very satisfying to them and they had enjoyed it. 20% of the students expressed it as an educative program and 11% expressed it as a program which was valuable while 6% described it in terms of its compactness.

In summary, all the student descriptions seemed to be positive about the program. The

important point here is that the iHAEP program had created a significant positive impact on every student. Some percentage of the students found it as an entertaining program, some as educative, while others as an affective program. Thus the findings indicate a positive attitude towards the program.

- Which activity in the program was liked the most?

The students were asked to identify the activity that they liked the most from amongst the various activities carried out in the iHAEP. The students' responses were analyzed and the following facts emerged.

The activity of story comprehension was most liked by 33% of the students while 21% of the students liked the activity on poem comprehension most. 9% of students liked the mathematics exercises involving topics like Average, Percentages, Indices etc the most. Activity of Information Transfer and the Game were both most liked by an equal percentage of students (8%). With 6% students most liked the activity of Dialogue writing followed by 4% students identifying the three activities of graph, poster making and report writing as the most liked activities individually. There were 3% of students who were not in a position to pick up a particular activity as the most liked one and answered that the entire program was most liked.

In summary, a large majority of students seemed to have liked the activities on comprehension –both story and poem the most. The important point here is that students could relate to the protagonist of the stories and the poets of the poems as they were almost of the same age as the students themselves. The overall findings indicate that the students preferred literary activities to a greater extent. All students identified some activity as the most liked which indicates that the activities of the iHAEP have impacted them.

- Which activity in the program was discussed most among friends?

The answers to activity discussed most among friends were analyzed and it was found that the activity of poem comprehension was most discussed by 25% of the students while 22% of the students discussed the activity on story comprehension the most. 13% students said that they discussed the entire program while 13% discussed the mathematics exercises the most among their friends. 6% students discussed the activities of Game and dialogue writing each. Activity of poster making and report writing was the most discussed by 4% of students individually.

A large majority of students have discussed the activities on comprehension –both story and poem the most. The activities of mathematics exercises were also most discussed by a considerable number of students, which was followed by the dialogue writing, Game, report writing and poster making. The important point here is that the activities that were identified as most liked were also discussed most.

### **Students views regarding integration of health-issues' like HIV/AIDS in the curriculum**

- Do you think it is important for the teachers to make the students aware of such health issues like HIV/AIDS through the curriculum? If yes, why?

All the students felt that it was necessary that teachers should make students aware of health issues like HIV/AIDS. The responses of the students regarding reasons for the same were analyzed and the nearly 100% of the respondents agreed that school is the place to sensitize children to health issues.

Four major themes emerge from their responses. 51% of the students that they should be made aware of health issues like

HIV/AIDS since education is meant to be given for the wellbeing of students. 7% felt that such issues when taught in schools will help students understand the people who are HIV positive/ to empathize with the HIV positive people. 14% felt that introducing such issues can make studies relevant and interesting, while 28% students felt that it can help avoid students from avoiding committing mistakes that can harm them and to protect themselves and others.

Overall the responses emphasize that students agree that they should be sensitized to health issues in schools as education is meant to be given for the wellbeing of students as put forth by a good 51 % of students. This reasoning is in tune with research findings of Action Aid study (India And Kenya) that indicate that teachers and students agree that schools are indeed the place to provide health education. The reasons cited by students also meet the overall goal of health education and particularly HIV/AIDS to change attitudes and empower citizens take charge of their health and the health of others by making conscious and well informed decisions.

## **FINDINGS AND CONCLUSIONS**

### **Findings Based on Quantitative analysis:**

#### **i) Findings pertaining to HIV/AIDS awareness:**

- There is no significant difference in the pre-test scores of experimental and control group on awareness of HIV/AIDS.
- There is a significant difference in the post-test HIV/AIDS awareness scores of experimental and control group. The experimental group is better than the control group on their HIV/AIDS awareness scores.
- There is a significant difference in the net gain scores of HIV/AIDS awareness of the experimental group and control group.

Though both the groups have shown improvement in the post tests scores over the pre-test scores, the experimental group shows a marked increase than the control group. Hence it was concluded that the iHAEP was effective in developing awareness of HIV/AIDS issue in students of VII and VII.

## Discussion

The findings show that experimental and control groups were matched prior to intervention on their awareness levels prior to intervention. The findings also show that after intervention, the experimental group is significantly better than the control group on their HIV/AIDS awareness scores.

Also both the groups, control and experimental groups, show an increase in the HIV/AIDS awareness scores after intervention. For the control group the higher post test scores over the pre-test scores can be attributed to learning that occurs from other sources like media, peer groups, etc, this finding corroborates with various other researches in the field. For example Agarwal H.K Chandrashekar and Coulter J (India) and Mousavia., Narmani M (Iran 2002) which says that mass media helps to gain knowledge of the issue but misconceptions prevail and can be removed through formal education about the issue.

The finding that there is a significant difference in the net gain scores of HIV/AIDS awareness of the experimental group and control group indicates that the experimental group has a marked increase in the awareness scores after intervention than the control group. This marked increase in post tests scores of the experimental group may be attributed to the planned intervention program. i.e. iHAEP

These findings are similar to the findings of Peter Brass, Michal Grivna, Maria Ganczak

et.al UAE (2009) who developed a peer-based educational intervention and evaluated its impact on knowledge and attitudes of high school students. They concluded that concise integrated teaching and workshops designed to address key knowledge and attitudinal deficiencies are highly effective.

Thus it was concluded that the significantly higher net gain in the awareness scores of experimental groups for all the samples was due to the intervention of the iHAEP.

### ii) Findings pertaining to HIV/AIDS awareness of Boys and Girls

- There is no significant difference in the pre-test HIV/AIDS awareness scores of boys and girls of experimental group.
- There is no significant difference in the post-test HIV/AIDS awareness scores of boys and girls of experimental group.
- There is no significant difference in the net gain HIV/AIDS awareness scores of boys and girls of the experimental group.

Though, both boys and girls of the experimental group show a significant increase in the post test awareness scores over the pre-test awareness scores. The boys and girls of the experimental group do not differ significantly in their net gain (difference in the post test scores over pre-test scores) on their HIV/AIDS awareness scores.

Hence it was concluded that the iHAEP does not differentially affect the HIV/AIDS awareness of boys and girls.

## Discussion

The findings of the present study show that the HIV/AIDS awareness scores of boys and girls prior to intervention matched for the boys and girls. This finding was contrary to the findings of Chatterjee C, Baur B et.al. (2005) from Calcutta who concluded that, girl's knowledge about AIDS was clearer than boys, on the basis of their study on awareness of AIDS among school students.

It was also found that the boys and girls of the experimental group show a significant increase in the post test awareness scores over the pre-test awareness scores; this implies that the iHAEP program intervention had a positive effect on the awareness levels of both boys and girls.

The boys and girls group show a net gain in their awareness scores, they have improved on their awareness levels due to the iHAEP. But the difference in net gain of the awareness scores for the boys and for the girls does not differ much. Hence it was concluded that the iHAEP does not differentially affect the HIV/AIDS awareness of boys and girls.

### iii) Findings pertaining to HIV/AIDS attitude:

- There is a significant difference in the pre-test HIV/AIDS attitude scores of experimental and control group the experimental group was significantly higher than control group on their HIV/AIDS attitude scores.
- There is a significant difference in the post-test HIV/AIDS attitude scores of experimental and control group. For all the samples the experimental group is better than the control group on their HIV/AIDS attitude scores.

- There is a significant difference in the net gain scores of attitude towards HIV/AIDS of the experimental group and control group. The experimental group shows marked improvement in the post tests scores over the pre-test scores. The higher net gain in the attitude towards HIV/AIDS issue of the experimental group may be attributed to intervention.

Hence it was concluded that the iHAEP was effective in developing positive attitudes towards the HIV/AIDS issue in students of VII and VIII.

### Discussion

The findings show that prior to intervention the HIV/AIDS attitude scores of the experimental group were better than the control group.

The findings also show that after intervention, the experimental group is significantly better than the control group on their HIV/AIDS attitude scores. This marked increase in post tests scores of the experimental group may be attributed to the planned intervention program.

The finding that there is a significant difference in the net gain scores of HIV/AIDS attitude of the experimental group and control group that the experimental group has a marked increase in the attitude scores after intervention than the control group. These findings are similar to those of Peter Brass, Michal Grivna, Maria Ganczak et al (2009) from UAE.

Thus it was concluded that the significantly higher net gain in the HIV/AIDS attitude scores of experimental groups for all the samples was due to the intervention of the iHAEP.

### iv) Findings pertaining to HIV/AIDS attitudes of boys and girls



- There is no significant difference in the pre-test HIV/AIDS attitude scores of boys and girls of experimental group.
- There is no significant difference in the post-test HIV/AIDS attitude scores of boys and girls of experimental group.
- There is no significant difference in the net gain scores on HIV/AIDS attitude of boys and girls of the experimental group.

## Discussions

From the findings it is clear that the boys and girls of experimental group are equal in their scores on HIV/AIDS attitude prior to intervention.

The findings also show that the girls and boys of experimental group are equal on HIV/AIDS attitude scores after the intervention.

Both boys and girls of the experimental group show a significant increase in the post test scores over the pre-test scores.

But the net gain of HIV/AIDS attitude scores of boys and girls of the experimental group is equal. This implies that the boys and girls of the experimental group are not differently affected by the iHAEP on their HIV/AIDS attitude.

So it was concluded that the iHAEP does not have any differential affect on the boys and girls attitude towards HIV/AIDS issue.

### v) Findings pertaining to Achievement in Mathematics

- There is a significant difference in the school achievement in mathematics,

before and after the intervention, for the experimental group of all the three schools.

### Discussion

For the experimental group of school 1, the school achievement in mathematics is better after intervention. While for school 2 and school 3 there is no significant difference in the school achievement in mathematics, before and after the intervention.

The achievement scores of mathematics have not reduced in school 2 and 3 and have increased in school 1 indicating that the intervention of iHAEP does not interfere with the learning of mathematics.

This finding put to rest the apprehension that is always raised whenever an integrated model of teaching is used, that whatever gain achieved in understanding of the integrated subject/issue may come in the way of learning the main subject.

### Findings pertaining to Achievement in English

- There is no significant difference in the school achievement in English, before and after the intervention, for the experimental group of school 1 and 3.
- There is a significant difference in the school achievement in English, before and after the intervention, for the experimental group of school 2,

### Discussion

The school achievement in English is the same before and after the intervention for experimental group of school 1 and 3. The school achievement in English has improved significantly after intervention for the experimental group of school 2.

The integrated HIV/AIDS education program developed for the study has

not interfered in the learning of English. The gain in the English scores obtained in one of the schools may be attributed to the fact that the entire intervention program brought out through English was based on communication skills and a transfer of learning may have taken place resulting in the improved performance in English achievement scores.

This finding corroborate with the study of Brian Fabian (2008) in Thailand which integrated English language training with sexuality issues by using practical situations in regards to sexuality issues to develop language skills of students. The results of Brian's study also shows that the intervention through English achieved the desired effect of presenting accurate and clear information about HIV/AIDS as well as improved English language skills which students were able to retain for long.

Similar findings are also reported by Munera Juliana, Garcia Luz A, Lopez Maria T, Pereira U<sup>15</sup> (2008) project, the impact of the human values instruction through the English class in seventh graders. The researchers reported that this process should be included in the English classes, in order to improve the English language development as well as the human values reinforcement. They also report that better social skills develop through this process. The researchers think that the human values topic is an excellent content for the English class for the students' growth not only academically but also personally.

Thus it is concluded that the iHAEP does not interfere with the students learning of Mathematics and English.

#### **Based on Qualitative analysis**

#### **i) Findings pertaining to Behavioural Intentions**

- The findings show that majority of the students' ie.86% of the students of the experimental group expressed positive or favourable behavioural intentions and only 4% exhibited unfavourable behavioural intentions while 10% remained neutral to carry out actions at the social level.
- Majority of the students' (84%) of the students of the experimental group expressed positive or favourable behavioural intentions and only 4% exhibited unfavourable behavioural intentions while 12% remained neutral to carry out actions at the personal level.
- Almost all the students felt that schools should conduct awareness program for HIV/AIDS awareness. 37% students felt that schools should conduct educational program like lectures, workshops, seminars, provide knowledge and information through leaflets etc.32% of students would like schools to hold Skits / Dramas/ Street Plays/ Posters/ Drawing Competitions.16% would like schools to conduct Awareness camps/Rallies/Campaign and 15% students want schools to hold Visits/Trips to hospitals to meet HIV/AIDS patients.
- The students' response to the kind of programs they would like to conduct personally shows that almost all the students were keen to conduct some program or the other for HIV/AIDS awareness.42% students expressed that that they were keen to attend educational program like lectures, workshops, seminars. 26% of students would like to hold Visits/Trips to hospitals to meet HIV/AIDS patients, 20% were keen to hold Skits / Dramas/ Street Plays/ Posters/ Drawing Competitions and 12%

would like to conduct Awareness camps/Rallies/ Campaign.

## Discussions

A large percentage of students have expressed positive behavioural intentions in social situations as well as at both the social level as well as at personal level. As per the Theory of Reasoned Action and Theory of planned Behaviour this indicates that there is a better chance that these students will carry out their intentions when the opportunity arises in real life.

Thus there is a favourable predicted behaviour change in the students to prevent and mitigate the spread of HIV/AIDS which is an indicator of the effectiveness of the iHAEP.

The responses of the students regarding programs that schools should undertake reflect an emphasis on knowledge and understanding of the issue through lectures, workshops, seminars, leaflets. The other programs suggested such as Skits / Dramas/ Street Plays/ Posters or Drawing followed by holding of rallies, camps and trips and visits to meet persons living with AIDS have been identified which indicates that students desire programs that evoke empathy and sensitivity.

This finding corroborates with the curriculum theory which provides the framework for health education and says that declarative knowledge, procedural knowledge and attitudes, values, beliefs, habits of mind all need to be transacted in the school. In fact the iHAEP incorporated all of them and this must have resulted in students identifying these programs as significant.

The finding also corroborates with [Harvey B, Stuart J & Swan T \(2000\)](#) study which revealed improvements in knowledge and attitudes about HIV/AIDS in the drama in education program receivers as against written information receivers.

All (100%) the students indicating that they were keen to conduct some program or the other for HIV/AIDS awareness. This finding was in consonance with the findings of [Malhotra N., Viridi J., and Kaur H., \(2003\)](#) Punjab, which also reports that almost all the students, aged 13-18 years, considered it their duty to inform youngsters or friends about the consequences of AIDS so that people can take preventive measures which can prove beneficial for the society.

The students responses to the choice of the programs they would like to carry out to promote HIV/AIDS Awareness indicate their readiness to enhance their own knowledge and understanding of the issue. Their willingness to participate in Skits / Dramas/ Street Plays/ make Posters or Drawing and holding of rallies, camps indicate their inclination towards active citizenship.

This finding conspicuously brings to the forefront T. H. McLaughlin's Citizenship theory<sup>1</sup> that says that a true world citizenship can be created only by a committed conscious effort or thrust towards a maximal approach (that which requires considerable degree of explicit understanding of democratic principles, values and procedures on the part of citizens together with dispositions and capacities required for a true democratic citizenship) in global citizenship education. All schools and colleges must aim for the same. And all programs aimed at developing

active and empowered citizens should not just emphasize on knowledge and understanding of various social issues but also have an action element.

### **ii) Findings pertaining to Students general reactions to the intervention**

- Almost all students answered the questions with different adjectives to describe the program. 100% of student responses used positive words to describe the program. The describing words were grouped in five categories based on the nature of the response. 39% of the students used superlatives to describe the program while 24% used words which showed that the program was very satisfying to them and they had enjoyed it. 20% of the students expressed it as an educative program and 11% expressed it as a program which was valuable while 6% described it in terms of its compactness.
- The activity of story comprehension was most liked by 33% of the students while 21% of the students liked the activity on poem comprehension most. 9% of students liked the mathematics exercises involving topics like Average, Percentages, Indices etc the most. Activity of Information Transfer and the Game were both most liked by an equal percentage of students (8%). With 6% students most liked the activity of Dialogue writing followed by 4% students identifying the three activities of graph, poster making and report writing as the most liked activities individually. There were 3% of students who were not in a position to pick up a particular activity as the most liked one and answered that the entire program was most liked.
- The activity of poem comprehension was most discussed by 25% of the students while 22% of the students discussed the activity on story comprehension the most. 13% students said that they discussed the entire program while 13% discussed the mathematics exercises the most among their friends. 6% students discussed the activities of Game and dialogue writing each. Activity of poster making and report writing was the most discussed by 4% of students individually.
- 100% of the respondents agreed that school is the place to sensitize children to health issues.
- Four major themes emerge from their responses. 51% of the students that they should be made aware of health issues like HIV/AIDS since education is meant to be given for the wellbeing of students. 7% felt that such issues when taught in schools will help students understand the people who are HIV positive/ to empathize with the HIV positive people

14% felt that introducing such issues can make studies relevant and interesting, while 28% students felt that it can help avoid students from committing mistakes that can harm them and will in turn help to protect themselves and others.

All the student descriptions show that they were positive about the program. The important point here is that the iHAEP program had created a significant positive impact on every student. Some percentage of the students found it as an entertaining program, some as educative, while others as an affective program. Thus the findings indicate a positive attitude towards the program.

A large majority of students seemed to have liked the activities on

comprehension –both story and poem the most. The important point here is that students could relate to the protagonist of the stories and the poets of the poems as they were almost of the same age as the students themselves. The overall findings indicate that the students preferred literary activities to a greater extent than mathematics.

All students identified some activity as the most liked which indicates that the activities of the iHAEP have impacted them.

A large majority of students have discussed the activities on comprehension, story and poem, the most. The activities of mathematics exercises were also most discussed by a considerable number of students, which was followed by the dialogue writing, game, report writing and poster making. The important point emerging is that the activities that were identified as most liked were also discussed the most.

All the students agree that they should be sensitized to health issues in schools as education is meant to be given for the wellbeing of students. The reasons cited by students also meet the overall goal of health education and particularly HIV/AIDS to change attitudes and empower citizens to take charge of their health and the health of others by making conscious and well informed decisions. From the findings it is clear that the iHAEP specifically designed for the study has been successful in achieving its objectives. The iHAEP has helped to create an impact on the students' level of awareness regarding HIV/AIDS and on their attitudes towards HIV/AIDS issue. The iHAEP also helped to develop

favourable behavioural intentions in the students to mitigate and prevent the spread of HIV/AIDS. The students in general liked the entire program and found it very useful.

On the whole, the Integrated HIV/AIDS Education Program (iHAEP) was effective in sensitizing students to the issue of HIV/AIDS.

## IMPLICATIONS

Making HIV/AIDS education a sustainable health education initiative for secondary schools was one of the primary objectives behind the study. What evolved was a HIV/AIDS education program that was effective and which threw light on one of the ways by which health issues can be a made part of formal schooling. One can use one's own creativity, add many permutations and combinations and develop health education programs. But some of the important things to keep in mind are:

- Institutions should work towards building an ethos that supports the aims of health education programs in its spirit and believe in cooperation, close collaboration with staff and value the teacher's efforts toward health education initiatives.
- Should follow a clear, well planned approach to curriculum planning and design.
- Focus on building teacher competencies; both people related as well as task related skills.
- Schools should collaborate / network with NGO's working in the area of health education, with Preventive social medicine depts. of medical colleges/ hospitals who work at ground level on health initiatives.

- Schools should develop supportive partnerships among teachers, parents, education officials and community leaders.

## RESEARCHER'S NOTE

In the present study, the researcher has developed a school based and activity oriented integrated HIV/AIDS education program for students which will help them develop the ability to take informed actions in real life situations. Further, the program will enable young students to recognize their role as empowered citizens in a world threatened with various pandemics.

School-based health programs are widely used to improve the health and nutrition of schoolchildren in developed countries. However, little effort has been made in India to provide preventive and promotive school health programs. This despite the fact that The National Health Policy of India 2002

targets schoolchildren for behaviour change communication and gives priority to school health programs aimed at preventive health education.<sup>2</sup>

The results of the study will be significant in developing a consensus on the importance of integrated health education programs in schools and help as a decisive factor to make policy changes in the curricula for secondary education to meet the world health needs. The findings of the study may act as a pointer to understand the kind of support system teachers will need in order to equip them to prepare young children to face the health related challenges.

The findings of the study and the overall experience during the intervention makes the researcher hopeful that such initiatives will serve as an impetus to the teaching fraternity to take up health education projects in schools and colleges.

Decision .Available at:  
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