REVIEW OF RESEARCH

A COMPARATIVE STUDY OF MIDDLE SCHOOL LEARNERS BY USING TRADITIONAL CLASS TEACHING AND GYANDHARSHAN AND GYANVANI TEACHING METHOD IN THE FIELD OF MATHEMATICS SUBJECT

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ABSTRACT
Gyandarshan and Gyanvani is a system that present learning content in various subject produced by an agency. It is a means of providing direct instruction (formal) as well as continuing education (Non formal) It has the capacity to bring the world into a classroom and a classroom into a home . India is a large country with varied climatic conditions . a large and ever growing population and vast tracts of inaccessible remote locations.

KEYWORDS : *GyanDarshan , educational satellite, digital tools and technologies.*

1.INTRODUCTION-
　　　Gyandarshan and Gyanvani as a mass medium has the potential to play a major role in the educational setup of our country.

- ➢   Improvement of Quality.
- ➢   Television as a catalyst.
- ➢   Television as a means of Extending children' experience.
- ➢   Television as a means of Introductions affective education.
- ➢   Television as a means of equalising educational opportunity.
- ➢   Television as a means of improving efficiency and productivities.
- ➢   Television based instructional system.

ROLE OF GYANDARSHAN AND GYANVANI PROGRAMMES :
- ➢   To introduce the content for the teacher to elaborate later and to provide droll and practice to the student.
- ➢   To provide background material for a lesson the teacher will deliver.
- ➢   To reinforce and review ideas already covered in class.
- ➢   To provide salient illustrations that will stimulate class discussion and discovery .

LIMITATIONS OF GYANDARSHAN AND GYANVANI:
- ➢   It is a one way of communication .
- ➢   Problem of pacing learning .

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➢ Low and poor accessibility
➢ Costly affair both production and receiving .
➢ Difficult to integrate T.V. and classroom teaching .
➢ Visuals become a source of distraction.

ROLE OF TEACHER IN GYANDARSHAN AND GYANVANI:
The five stages in GYANDARSHAN AND GYANVANI in which a teacher needs to be involved are .

a) **Planning and preparation of programme :** the ultimate user of the GYANDARSHAN AND GYANVANI programme is the teacher. Hence the teacher role in making decisions regarding the content, matter and sequence is of utmost importance.

b) **Productions of programme :** The Productions of a GYANDARSHAN AND GYANVANI programme involves a lot of technical knowledge , but the knowledge of the mechanics of production helps him in contributing to the editing and modification stages.

c) **Presentations of programme:** GYANDARSHAN AND GYANVANI presentation requires some extra skills other than classroom teaching skills. So a teacher should be competent to present a lesson in the studio.

d) **Utilisation of Programme:** The teacher should be able to lead the follow up programme after viewing ends. The teacher has to get the pupils ready to watch a programme by providing necessary background information and later on conclude based on observations after viewing of the program. He should be in a positions to clarify doubts and elaborate certain missing links.

e) **Evaluation of the Programme:** The teacher should be trained to evaluate all aspect of the program so that he will be in a position to suggest modifications both in content and style of presentation.

2. OBJECTIVES OF STUDY-
• To identify the impact of traditional teaching on the middle school learner while teaching mathematics subject.
• To identify the impact of Gyandarshan and Gyanvani teaching on the middle school learner while teaching mathematics subject.
• To study the comparison between effectiveness of learning mathematics subject among middle school learner by Traditional method and Gyandarshan and Gyanvani teaching method.

3. HYPOTHESIS –
• There does not exist, any significant difference in learning mathematics subject teaching by traditional method.
• There does not exist, any significant difference in learning mathematics subject teaching by Gyandarshan and Gyanvani teaching method.
• There does not exist, any significant difference on learning mathematics subject between effectiveness of Traditional class teaching and Gyandarshan and Gyanvani teaching method.

4. REVIEW OF THE STUDY-
Education is the process by which an individual is encouraged and enabled to develop fully his/her innate potential. Operational definitions and delimitations of the study have been discussed.the research literature related to the study was reviewed. Main are of Zahra Taleb, Fatemah Hassanzadeh (2014), Prakash Chandra Jena (2013), Laird R Ottman Jr. (2012), Vamshi KrishnakantT., M. Vishnu Datta, G. Bhamprakash (2011), Pushpa Repswal (2012), Kumar, K.S. Kiran (2011), Singh Y.G. (2010), Desai,Beena Y. (2002).A review was also made of the studies revealing are equally.

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5. THE SAMPLE-

The investigator selected one Co-educational School of Khargone city affiliated with CBSE. As the number of students in this school was quite sufficient for experimentation, so there was no need to select any other School for the study. The sample was selected as an intact group of class VIII student s of middle classes. The investigator approached personally for taken time to experiment from the administrative authority of the school.The sample consisted of 100 students of class VIII of St.Jude Higher Secondary School, Khargone city of Madhya Pradesh, which is a CBSE based school. They were personally approached by the investigator. The age of the students ranged from 12 to 13 years.

Table 1
Teaching method wise numbers of students included in the sample.

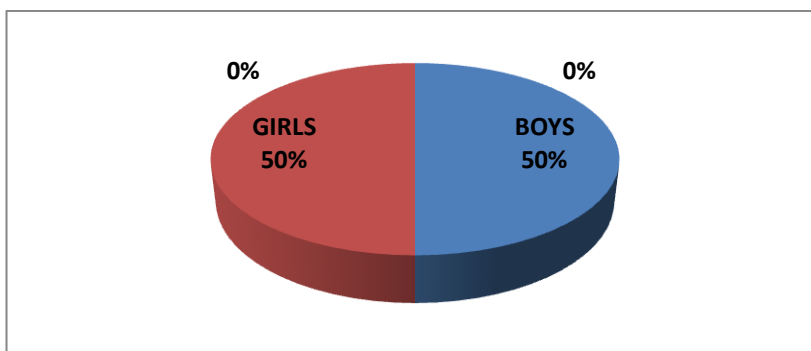| S.No.	Groups	STUDENTS		
		BOYS	GIRLS	TOTAL
1	Students taught with Gyandarshan and Gyanvani teaching method	25	25	50
2	Students taught with Traditional method of teaching	25	25	50
TOTAL		50	50	100

FIG-1 Distribution of sample according to sex

6. TOOLS USED

In order to achieve the objectives of the study, Achievement test were developed by the investigator himself and standardized also.   Rest of the tools used in this study was standardized test. In brief following tools were used in the present study.

- **ACHIEVEMENT TEST**

Achievement test was developed by the investigator. The test consists of 30 items which are to be selected by the subjects by choosing one correct alternative of the four alternative responses given against each item. The subjects are instructed about what they have to do. Care has been taken to cover as many aspects as conveniently permissible and possible from administration point of view. The usual time which is needed for administering the test is 25 minutes including the time needed for giving the instruction to the subject.

- **GROUP FORMATION -**

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Two groups of population have been formed one of Traditional class teaching method group and Gyandarshan and Gyanvani teaching method group. Students were randomly selected from the school.

TESTING OF HYPOTHESIS

The entire hypothesis studied and verified by statistical methods, Results and interpretation explained and discussed.

Hypothesis -1

There does not exist, any significant difference in learning mathematics subject teaching by traditional method.

Table-2
Calculation for Pre-test (Traditional classroom teaching)

x	f	M.V.	fx	d=x 14.1	d^2	f d^2
0-5	1	2.5	2.5	-11.6	134.56	134.56
5-10	5	7.5	37.5	-6.6	43.56	217.8
10-15	26	12.5	325	-1.6	2.56	66.56
15-20	13	17.5	227.5	3.4	11.56	150.28
20-25	5	22.5	112.5	8.4	70.56	352.8
	∑f=50		$\sum fx =$ 705.00			∑f d^2 =922

$$\bar{x} = \frac{705}{50} = 14.1$$

S.D. $= \sqrt{\dfrac{922}{50}}$

S.D. $= \sqrt{18.44}$

S.D.=4.29

C.V. $= \dfrac{4.29}{14.1} \, X \, 100$

C.V. = 30.45%

Table-3
Calculation for Post-test (Traditional classroom teaching)

x	f	M.V.	fx	d=x-14.1	d^2	f d^2
0-5	00	2.5	00	-14	196	00
5-10	04	7.5	30	-9	81	324
10-15	13	12.5	162.5	-4	16	208
15-20	22	17.5	385	1	1	22
20-25	11	22.5	247.52	6	36	396
	∑f = 50		∑fx = 825.00			∑f d^2 = 950

$$\bar{x} = \frac{825}{50} = 16.5$$

S.D. $= \sqrt{950/50}$

S.D. $= \sqrt{19}$

S.D. = 4.35

$C.V. = \dfrac{4.35}{16.5} \, x100$

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C.V. = 26.41 %

Table-4
Shows the difference in the effect of Traditional classroom teaching on achievement of mathematicss learner of VIII class, t-value was calculated and result is presented.

S. No.	Groups	N	Mean	S.D.	Standard error (σD)	Calculated value of 't'	df	Table Value of 't'		Result
1	Pre Test Traditional Learning	50	14.1	4.29	0.06	2.77	98	0.05 level	0.01 level	Significant difference found
2	Post Test Traditional Learning	50	16.5	4.35				1.98	2.63	

Level of significance 0.05 = 1.98, Level of significance 0.01 = 2.63
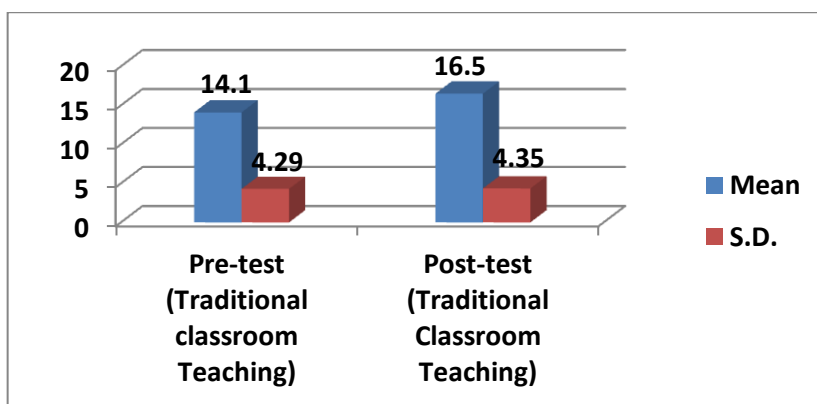
Graph :- Pre-test and Post-test results of learning by Traditional method of teaching

7. INTERPRETATION :

The given table -2 shows that marks of achievements of learner group of VIII class of pre test conducted before instructing them and table-3 shows post test marks of achievement after instructing with Traditional method of teaching. Table -4 shows mean of pre test is 14.1 and S.D. is 4.29 and post test groups mean 16.5 and S.D. is 4.35. The calculated value of 't' is 2.77. Since the calculate value is greater then the table value of 't' at 0.01 level. The difference is slightly above the level and Null hypothesis "There does not exist, any significant difference in learning mathematicss subject teaching by traditional method" is not accepted.

DISCUSSION OF RESULT :

From the above data it can be interpreted that there exists a little significant difference in the effect of teaching through Traditional class teaching method of mathematicss in VIII class.

Hypothesis-2

There does not exist, any significant difference in learning mathematics subject teaching by Gyandarshan and Gyanvani teaching method. Marks of achievements of learner group of VIII class of pre test conducted before instructing them and post test marks of achievement after instructing with Traditional method of teaching. mean of pre test is 13.2 and S.D. is 3.87 and post test groups mean 16.6 and S.D. is 4.20. The calculated value of 't' is 4.25. Since the calculate value is greater then the table value of 't' at 0.01 level. The difference is significantly above the level and Null hypothesis "There does not exist, any significant

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difference in learning mathematics subject teaching by Gyandarshan and Gyanvani teaching method" is not accepted.

DISCUSSION OF RESULT :

From the above data it can be interpreted that there exists a significant difference in the effect of teaching through Gyandarshan and Gyanvani teaching method of mathematics in VIII class.

Hypothesis-3

There does not exist, any significant difference on learning mathematics subject between effectiveness of Traditional class teaching and Gyandarshan and Gyanvani teaching.

Table-8 Calculated value of t-ratio of results of TCT and SCT

S. No.	Group		Mean	S.D.	't' ratio
1	Traditional Classroom Teaching	Pre Test	14.1	4.29	2.77
		Post Test	16.5	4.35	
2	Smart Classroom Teaching	Pre Test	13.2	3.87	4.25
		Post Test	16.6	4.20	

Level of significance 0.05 = 1.98, Level of significance 0.01 = 2.63
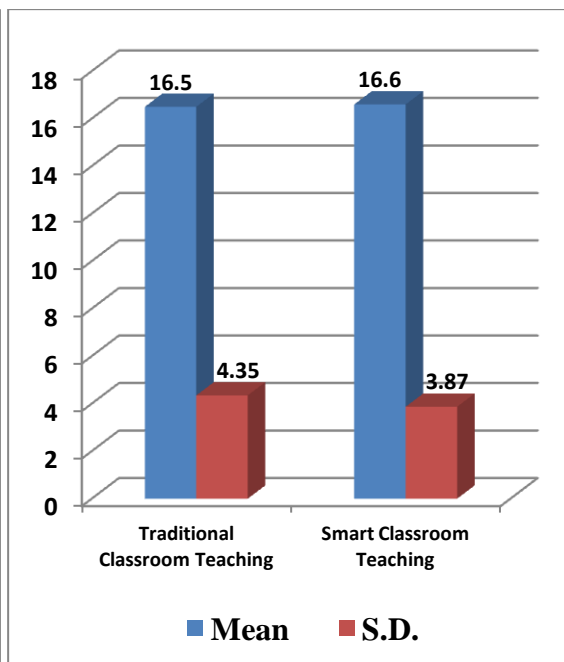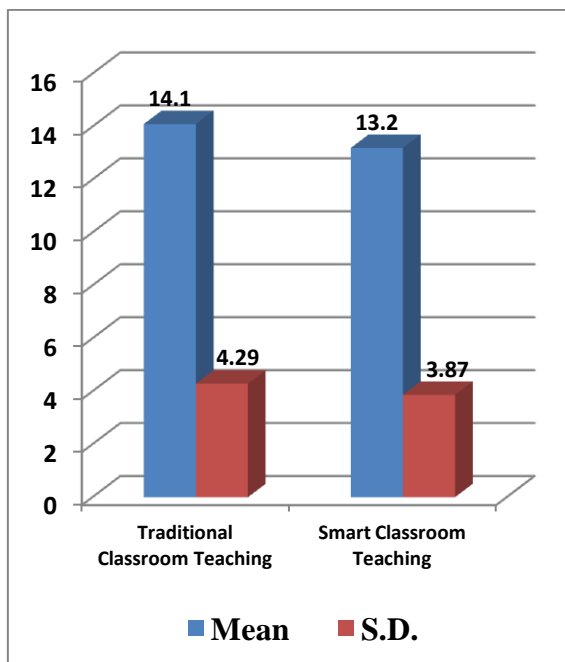
Graph:- Bar Graph shows rersults of Pre-test   Graph:- Bar Graph shows rersults of Post-test

To find out the difference in the learning mathematics subject taught by smart classroom teaching and Traditional classroom teaching method, t-value was calculated and result is presented .The calculated t-ratio of achievement of mathematics learner of VIII class who get instructions in smart classroom teaching method and who did not get instructions in smart classroom teaching according to their pre-test and post-test. From the above values of   t-ratio (TCT 2.77 < SCT 4.25) it can be interpreted that there exists a significant difference in the effect of teaching through Gyandarshan and Gyanvani teaching method on learning mathematics subject. Thus, the proposed Null hypothesis is not accepted.

8. FINDINGS-

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On the basis of the 'data analysis done on the survey group, the following conclusions have been drawn

1. There is a little significant difference is found on learning of mathematics subject of class VIII students taught by Traditional teaching method.
2. There is significant difference is found on learning of mathematics subject of class VIII students taught by Smart Classes.
3. There is a significant difference found on learning of mathematics subject when learners were taught by Smart Classes in comparison of Traditional teaching method.

5.11 .EDUCATIONAL IMPLICATIONS-

With the help findings of present study, the following educational implications come in light. The study provides excellent evidence that there is more impact of smart classes on learning mathematics subject in VIII class learners then traditional teaching method. By teaching them with smart classes we can increase the learning ability of mathematics subject . Effectiveness of intrinsically programmed material. For teaching the Mathematics subject, by practicing learning material, teachers can improve the understanding and knowledge of the students in mathematics subject.

1. This type of study also prevents the wastage of time of the students.
2. The Findings of the study have also revealed to motivate the learners and teachers may be able to improve their class room teaching.
3. Teaching contents must be changed for low intelligent students so that they can understand the content.

REFERENCES BOOKS:

Agarwal, D.D.(2005) : *Educational Technology*, Sarup and Sons, New Delhi

Banerji, Ashok and Anand Mohan Ghosh (2010): *Multimedia Technologies*, Tata McGraw-Hill Education, New Delhi

Bangia, Ramesh (2005) : *IT Tools and Applications*, Firewall media, New Delhi

Best, John W. and James V. Kahn (2006) : *Research in Education*, Pearson/Ally and Bacon

Chaturvedi, Shubra (2006) : *Educational Technology and Classroom Management,* Jain Prakash Mandir, Jaipur

Chauhan, S.S (1995) : *Innovations in Teaching Learning process*, New Delhi – Vikas Publishing House

Hofstetter, F. T. (1995) : *Multimedia Literacy*, New York: McGraw-Hill.

Khan, M.S (1990) : *Educational Research,* APHA Publishing Corporation, New Delhi

Khirwadkar, Anjali and Pushpanadham. K (2005) : *Information and Communication in Technology in Education,* Sarup and sons, New Delhi

Kothari, C.R. (2008): *Research Methodology: Method and Techniques*, New age International, New Delhi

Kumar, K. L.(2004) : *Educational Technology*, New age international, New Delhi

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