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SMART CLASS ROOM TEACHING TO PROMOTE SELF CONCEPT

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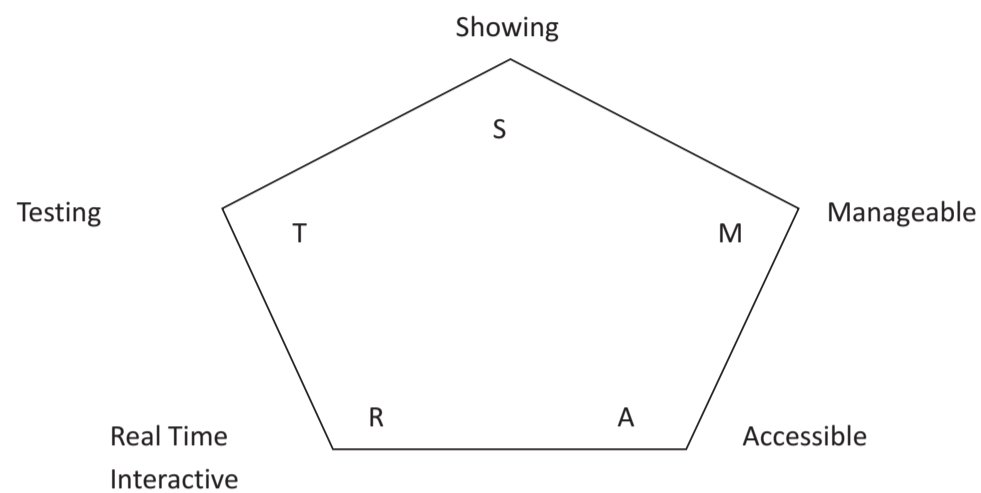Research Scholar, Chaudhary Devi Lal University, Sirsa .

Abstract:-In the era of science and technology the smart class room can be considered a tool for education which promotes the development of skills and multiple intelligence. In recent years, government has funded technology in educational institutions with an aim to widen the teaching resources as well as enhancing the learning experiences for students through smart classrooms. The smart technology software that comes with a smart board, has built in lesson planning software to teachers with preparing a lesson. This helps to provide those visual images to learners with the ultimate experiences. In present study, an attempt been made to study the effectiveness of smart class room on students' self-concept in teaching of social science. Self concept is a positive attitude of oneself towards learning. The sample of study consisted of 75 students of 8th class drawn from two English medium schools of Sirsa district having smart class room facilities. Simple random sampling technique was used by the investigator to select the sample. The data was collected through self-concept scale by R. K. Sarswat. Data was analyzed using't' test . Result shows that there is significant difference between experimental and control group. The students taught through smart class room have higher self concept for learning. Hence smart class room is a better technique of imparting education to the school going students.

Keywords: Smart class room, Self-concept, Traditional Method.

INTRODUCTION:

With the development of ICT in education in India, the majority of the teachers in class shifted their teaching strategy from the original 'Chalk Board' teaching mode to the 'Computer Projected' teaching mode [Huang2011] . Technology has been used to improve the quality of instruction. It is the technology that might enable teachers to integrate ICT into teaching and learning and create a whole class learning environment that is truly engaging and interactive.

In the information age, new kind of classroom should be effective to present teaching contents, make convenient to acquire learning , able to promote classroom interaction, with contextual awareness and environmental management, which may be called Smart classroom. A smart classroom relates to the teaching content presentation in a effective way, convenient access of learning resources, deep interactivity of teaching and learning, contextual awareness and classroom management etc. It may be summarized as Showing, Manageable, Accessible, Real-time interactive and Testing, which nicknames as 'S. M. A. R. T'. The five dimensions just embody the wisdom of a smart classroom feature, which can be referred to as 'SMART' concept model, as shown in figure

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Showing

S

Testing

T

M

Manageable

Real Time
Interactive

R

A

Accessible

Concept of model smart class room

Showing

This dimension represents teaching information presentation capabilities of the classroom, which requires not only showing the contents but also showing content suitable for learners cognitive characteristics, understanding and processing. That can reduce the cognitive load and improve learners' achievement.

Manageable

This dimension represents diverse layout and the convenience of smart classroom management, resources of smart classroom should be easy to manage in the context of physical environment as well as for electrical safety.

Accessible

This dimension represents convenience of resources, acquisition and equipment accessing the smart classroom, which involves resources selection, content distribution and access speed. In this selection of resources, the Smart classroom should be able to support teaching and learning activities.

Real time interactive

This dimension represents the ability to support the teaching interaction and human computer interaction of the Smart class room.

TESTING

Testing dimension represents perception of the physical environment and learning behavior in smart classroom.
Manageable and testing dimensions are the common requirements of the smart classroom, Manageable dimensions require smart classroom should be equipped with up to date system, resource monitoring and management. Smart classroom demonstrate considerable potential in helping to meet the needs of students with diverse learning styles and to engage students during the learning process. Advancement in the classroom is one positive experience for an individual that may result in an improved self concept. Self concept is learned perceptions, beliefs, attitudes with a favourable conception due to experiences in the smart classroom.

REVIEW RELATED TO THE USE OF TECHNOLOGY

Sanjna (2001) A Comparative study of the effectiveness of C.A.I. and C.M.I. on pupil achievement in science on their self concept and study involvement."

Finding:

1Pupil taught science through C.A.I. and C.M.I. were significantly improved in self concept.

2.Instruction through C.A.I. and C.M.I. were effective in increasing study involvement of the students.
3.C.A.I. and C.M.I. were effective in raising the achievement of pupils.

Kumar (2005) found that students taught through memory model did significantly better than those taught through conventional method."

Jennifer, Vermillion and Robert Hannafin (2007] found that a review of research concerning human development and the role of technology in restoring self expression, as well as the authors personal perspectives are presented to advance the argument that technology should increasingly be used to promote positive self expression for all students and not exclusively as a conveyor of content to improve achievement."

Autism and Discord (2007) observed that the effects of smart board technology, an interactive whiteboard, and a 3S constant time delay procedure was evaluated for teaching sight word reading to students with moderate intellectual disabilities with in a small group arrangement. This technology is used to teach multiple students at one time.

Jewitt et al. (2007)The smart board permits a multimodal approach that allows participants to move beyond language barriers or abstract content by presenting a variety of means including colour, image, sound, spatial and kinaesthesic modalities for students to make meaning.

I B M China Research Lab (2007) propounded that "the smart class room project explores the challenges and potentials of the intelligent environmental classroom for tele-education. The smart class room could actively, observe, listen and serve the teachers a wall size media board. Just by their hands or use speeches and gestures to conduct the class discussion involving of the distant students.

Kaur, Ranjit (2009) effectiveness of computer assisted instruction on Reasoning ability, Problem solving ability and Scholastic achievement of 7th class science students. The students having high intelligence with high SES scored significantly higher in Scholastic achievement when taught through computer assisted instruction.

Salmon [2010] in his study emphasized that digital technology was an important 'moderate in learning activities, as it was a condition and an environment that could assist learners in learning activities. Hackman and walker [2010] Indicate that media richness contribute to increasing e-learning satisfaction after the empirical study of the use of television for teaching.

Changsheng (2011) developed a theory of dual channel dual teaching platform, and put forward a twin track teaching mode. Smart classroom can effectively overcome students thinking discontinuity problem which caused by the single screen.

Rani [2010] conducted study on Career maturity, Achievement motivation and self concept of adolescent as determinants of their scholastic achievement. The main findings of the study were that the high self concept group of students exhibits positive relationship between listening attentively behaviour and achievement both in the beginning and the end of session, whereas, the low self –concept group exhibits the same only towards the end of the session.

Ani (2013) This study has suggested that educational video games can boost Kids' motivation to learn. Researchers looked at two main types of motivational orientations: mastery goal orientation and performance goal orientation. The findings revealed that students playing under competitive or collaboratively situation adopted an optimal mindset for learning while playing the video games with others. (THE TRIBUNE)

STATEMENT OF THE PROBLEM

EFFECTIVENESS OF EDU SMART CLASS ROOM IN TERMS OF SELF CONCEPT IN SOCIAL SCIENCE ON EIGHT CLASS STUDENTS

OPERATIONAL DEFINITION OF THE TERMS USED

SMART CLASS ROOM

The smart classroom is equipped with a board that is smart board, connected to a computer and a projector. The smart board is capable of projecting image on to a large, touch-sensitive screen. The smart board can be operated by using a special pen directly on the screen. It permits a multimodal approach that allow participants to move beyond language barriers or abstract content by presenting a variety of integrating elements of text, graphics, sound, video and to physically interact with the objects on the screen.

SELF- CONCEPT

Self is the picture of oneself in one's own eyes. It is the image of the person as a whole, should be, and might like to be. It means the perceptions, beliefs attitudes and feelings with the individual views a part of the characteristic of him. A person with a favourable conception of oneself due to experiences.

TRADITIONAL METHOD

Traditional method is instruction only through lecture method, assisted by chalk board or text books.

RATIONAL OF THE STUDY

We are living in an era of rapidly changing society. We may attribute this rapid pace of change to ever evolving the technology. We need to utilize the technology for our benefit for spreading awareness. The field of imparting education has not remain isolated from latest technology like the use of computers, LCD, projectors etc. The need of this study was felt as we needed to know whether the use of technology like a smart class room wise help to transform the self-concept of the students in a more positive and effective manner or not. Hence in the present study effectiveness of smart class room has been found out between the students of school using smart class rooms and those not using of that.

Objectives of the Study

1.To develop instructional material for EDU smart class room in social sciences on specific topics for eight class students.
2.To compare mean scores on the self-concept test in social science of the two groups of 8th standards to be taught social science with the use of smart class room and traditional method of teaching before the experimental treatment.
3.To study the effectiveness of smart class room and traditional method of teaching in relation to the self-concept among eighth standard social sciences students after the treatment.

Hypothesis

H1 There is no significant difference in mean scores on the self-concept test in social science of 8th class students to be taught social science with the use of smart class room and traditional method of teaching before experimental treatment.
H2 There is no significant difference in the mean scores on the self-concept test in social sciences of VIII class students to be taught social sciences with the use of smart class room and traditional method of teaching after experimental treatment.
H3. There is no significant difference in the gain scores, on the self-concept test in social sciences of VIII class students to be taught social sciences with the use of smart class rooms and traditional method of teaching.

METHOD OF THE STUDY

In the present study pre-test post- test experimental control group design was used. This study was completed in two stages.

The present study was delimited in respect of:

1.Sample: The experiment was restricted to a group of 75 students of VIII class, from two schools of Sirsa district.
2.Content: The smart class presentations were developed only on two units i.e. resources and judiciary.
3.Language: The digital board assisted instructions were developed in English medium.
4.The study was confined to social sciences only

Sample

The sample of this study was confined to 75 students of 8th class from English medium schools of Sirsa district having smart class room facilities.

Tools

Self-concept questionnaire constructed by R. K. Saraswat was used to measure the self-concept of students.
Statistical technical used
't' Test was used by investigator to analyze the data.

RESEARCH DESIGN OF THE STUDY

Group	Initial Assessment	Experimental Activities	Final Assessment
Experimental	Pre test	With Smart Class	Post Test
Control	Pre test	Without Smart Class	Post Test

RESULTS AND DISCUSSION

Table 1 showing mean pre-test scores of experimental and control group.

Scores	Group	Mean	S.D.	t value	Level of significance
Pre-test	Experimental	49.50	11.5	0.02	Not Significant
	Control	49.07	10.39		

Interpretation

Table 1 shows that mean score of pre-test for experimental and control group are 49.50 and 49.07 with S.D.,S 11.5 and 10.39 respectively . The T-ratio came out to be 0.02 which is not significant at 0.01 level of significance. This means that Control and experimental groups don't differ significantly with respect to pre-test scores of self-concept in social science of 8th standard students. Hence, the null hypothesis is accepted and an alternative hypothesis is rejected. This means that the mean score of pre-test self-concept in social science of 8th standard student is similar in control and experimental groups. In other words, we can say that both the experimental and control group were similar at the initial stage in their self-concept.

Table 2 showing difference between mean post-test scores of experimental and control group

Scores	Group	Mean	SD	t value	Level of significance
Post-test	Experimental	70.76	9.76	10.28	Significant
	Control	53.38	7.96		

Interpretation

Table 2 shows that mean scores of post-test for experimental and control group are 70.76 and 53.38 with S.D.,S 9.76 and 7.96 respectively . The T-ratio came out to be 10.28 that is greater than the calculated value at 0.01 level of significance. This means that Control and experimental groups differ significantly with respect to post-test scores of self-concept in social science of 8th standard students. Hence, the null hypothesis is rejected and vice-versa an alternative hypothesis is accepted. This means that the mean score of self concept post-test in social science of 8th standard student is higher when taught through edu-smart class room as compared to traditional method.

Table 3 showing difference between gain scores of experimental and control group

Gain Scores	Group	Mean	SD	t value	Level of significance
	Experimental	22.76	6.6	7.22	Significant
	Control	5.13	4.4		

Interpretation

Table 3 shows that mean scores of post-test for experimental and control group are 22.76 and 5.13 with S.D., 6.6 and 4.4 respectively . The T-ratio came out to be 7.22 that is greater than the table value which is significant at 0.01 level . It means control and experimental group differ significantly with respect to gain of pre and post self-concept scores in social sciences of 8th standard students. Hence, the null hypothesis is rejected and vice-versa an alternative hypothesis is accepted. This means that self concept test in social science of 8th standard student is higher when taught through edu-smart class room as compared to traditional method of instructions.

FINDINGS

The major finding of the study is that edu-smart class room teaching is found to be significantly more effective to enhance the self-concept of students in social science as compared to conventional teaching. Results indicated that teaching

through smart class can be a better method of imparting knowledge as compared to traditional method of teaching.

CONCLUSION

The various conclusions that can be drawn from the smart class room teaching during experimentation are as under:-

1.Improves teacher effectiveness and productivity in class.
2.It brings abstract and difficult curriculum concept lively inside the class rooms.
3.Makes learning a enjoyable experience for students.
4.Improves self-concept and innovative abilities of the students.
5.Enables instant formative assessment of learning outcomes in the class.
6.It also enables teachers to instantly assess and evaluate the learning outcomes achieved by their students in class.
7.Motivation and Reinforcement given to all students on every improvement on every improvements.
8.Organization of corrective activities.

EDUCATIONAL IMPLICATION

1. Teaching through Smart class room lead to positive attitude towards smart classes. Thus when students were taught through smart class they felt more motivated and excited which helps in raising their self concept.
2. Smart class significantly sustained the interest of students in learning process.
3. Smart class helps the teacher in covering the instructional content at a faster pace.
4. Smart class is mainly used in inquiry teaching mode and the mode.
5. Smart class leads to the students to move their own pace, thus gifted are not bored, slow learner are not rushed and shy students do not feel embarrassed.

REFERENCES

1.Ani (2013)." Educational video games can boost Kids' motivation to learn". THE TRIBUNE Ed. 12 Nov., p.12
2.Bobbi, F. Adrian (2004) Incorporating the Smart Board for Smart Teaching.
3.C. Han, J. Gilbert, G. and Reiss R. (SSGRR), 2000 "A Smart e-school Framwork," Proc. of Scnola Superiors.
4.Chen C., Sannvya, L., Hong W. and Chen Zengzhao (2011). Dual track teaching modal based on dual coding theory [J].China Education Info, 3: 52-55.
5.Disord, J.A.D. (2007). Impact of smart board Technology: An investigation of sign word reading and observational learning. Springer Science+Business
6.Drummond, R. J. (1976). Self-concept of children with speech disabilities. (ERIC Document Reproduction service no. Ed.171413).
2. Jewitt, C., Moss, and Cardini, A.(2007). "Pace, interactivity and multimodality in teachers' design of texts for interactive whiteboards in the secondary school classroom." Learning media and technology, vol. 32 (3) pp 303-3171 3. Huang Ronghuai (2011). ICT in Education Promotes Current Educational Change: Challenges and Opportunities [J]. Chinese educational technology, (1):36-40.
7.Hackman, M.Z. and Walker, K.(2010). Instructional communication in the televised classroom, Communication Education, Vol. 39, pp.145_156.
8.Hannafin, R.D. (2004).Achievement differences in structured vs. unstructured instructional geometry programs. Educational Technology research andDevelopment, 52 (1) : 19-32
9.http://ejite isn. edu./volume7/Vermillion
10.http://www.mb.com.ph/node/326805/ict
11.http://www.miranda net.ac.UK/publication/Smartboard. Htm=conclusions
12.http:/link.com/article/10.1007/511858-008-0159
13.IBM China Research Lab, Bejing, China (2007) Smart classroom-An Intelligent Environment for Tele-Education.
14.Kaur, R. (2009). Effectiveness of computer assisted instruction over reasoning ability, problem solving and scholastic achievement of 7th class science students. Unpublished Ph.D., Thesis K.U.K.
15.Kumar S. (2005) A Comparative study of effectiveness of social inquiry model and memory model on pupils achievement in social science and their self concept. Unpublished Ph. D. Thesis Rohtak
16.Rani, M. (2010) Career Maturity, Achievement motivation and self-concept of Adolescents as Determinants of their Scholastic Achievement. Unpublished Ph.D. Thesis Rohtak
17.Rani, S. (2001) A comparative study of the effectiveness of computer assisted instruction and computer management instruction on pupil achievement in science their self concept and study involvement. Journal of Educational Research.
18.Saade, R. G., He, X. and Kira, D. (2011)." Exploring dimensions to online Publishing Corporation.
19.Salmon, G.(2010).E-moderating: The Key to teaching and learning online. (2nd ed.).London, UK: Rutledge Falmer.
20.Shanshan, S. (2011). On school desks and chairs design [J]. Art Design, 8 :134-135

21.Smart Technologies, (2003) from http://www.SMART Tech. com
22.URL http://link-Springer.com/chapter/10.1007/3-54045453-5-85
23.URL:http://www.ssgrr. It/en ssgrr2000/papers/ 187.pdf
24.Vermillion, J.R. and Hannafin, R.D. (2007). Using Technology to promote expression and self concept. Electronic Journal

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