

6.1 Introduction

Communication revolution has possibly revolutionised thought, feeling and behaviour by allowing any man, woman or child anywhere in the world to exchange visual and audio experiences with any man, woman or child in any other place in the world. Communication means not only giving information but also bringing change. Effective communication is sharing of ideas, knowledge, skills and attitudes till they become in the dominion of both. It is observed that instruction in schools is being done on traditional lines, mainly through words. Words are very important as a medium of communication but words alone do not bring our proper images in the mind of the students. Their background experience is confined and hence education imparted through words is not understood by them.

The roles of educational medias have more significance in India. They have scope for bringing educational sources and resources into the classroom facilitating teachers to teach and learners to learn. Further, National Curriculum Framework, 2005 asserts, *“If ET (Educational Technology) is to become a means of enhancing curricular reform, it must treat the majority of teachers and children not merely as consumers but as active producers. There must be widespread consultation regarding use of during development and implementation, ET facilities need to be used at all levels of schools- cluster and block resource centres, district, state and national level institutions- in order to provide hands-on experience in using ET. Such experience provided to children, teachers and teacher educators, could include something as simple as the audience recording of an interview with a village elder, to making a video film or a video game. Providing children more direct access to multimedia development and Information Communication Technology (ICT), and allowing them to mix and make*

their own productions and to present their own experiences, could provide them with new opportunities to explore their own creative imagination.” This endorses further efforts from all concerned to enable the teachers in developing multimedia educational content and providing these to the end users through a proper video distribution system.

An outstanding development in modern education is the increased use of supplementary devices by which the teacher through the use of more than one sensory channel helps to classify, establish and correlate accuracy, concepts, interpretations and appreciations, increases knowledge, arouses interest, and evokes worthy emotions and enriches the imagination of children.

Needless to say the role of educational media and its importance in this stupendous effort is obvious and this has been realised and acknowledged at least at the conceptual level and to a considerable extent at the implementation level. Education can thus reach a take off stage with the help of novel technologies. This would provide individualised instruction to learners conveniently suitable to their needs and pace of learning.

But the effective use of educational media in a classroom depends upon the attitudes of administrators and principals and educators or teachers to apply technology in schools’ daily pedagogical practices. Various studies have been on studying the attitude of educators. The attitude of teachers was the focus of study by **Naik and Pathy (1997)** in their study of the attitudes of secondary school science teachers towards teaching of science. **Kishore (1996)** made an attempt at the understanding of the issue of relationship among gender, science, technology and mathematics while **Singh (2015)** studied the attitude of urban and rural male and female teachers about ICT. To add, **Yunus (2007)** proved that positive attitude towards ICT usually foretell further future

computer use. **Brinda, S. et.al (2012)** found that attitude of ICT among below 25 years is higher than the above 25 years B.Ed. trainees.

Attitude is one of the important factors that determine the success in language learning (**Ghazali, 2009**). In fact there is a significant relationship between the experience level and favourable attitudes towards the use of ICT tools (**Suliman, 2014**). To add, **Yunus (2007)** proved that positive attitude towards ICT usually foretell further future computer use. Effects of instructional methods have been measured by assessing students' attitude towards the instruction (Barlett & Strough, 2003; Buzzel et al, 2002; Kim & Kem, 2005; Richardson, 1997; Susskind, 2005) Most of these studies reported that students attitude towards instruction were becoming more favourable after they were exposed to new technology based instructional material (**Yamauchi, LG, 2008**).

Successful technology adoption in teachers' classroom is dependent upon school administrators providing an individualized, differentiated process of training and implementation (**Gray, 2001**). Studies showed that media or computer enabled education had influence on learners in a positive way. Students can understand the more factual understanding through Educational Media or Computer presentations rather than teacher in classrooms. And for smooth utilization of media in classrooms a favourable attitude of administrators and principals educators or teachers and learners or students is important.

According to National Curriculum Framework 2005, the key to meeting the challenge of achieving quality in education is through the appreciation of the role of educational technology as an agent of change in the classroom, which includes the teacher and the teaching learning process.

The review of related research reveals that very scanty studies have been conducted on educational media. A series of studies of different nature focusing on the varied aspects and dimensions of educational media is the need of the hour. The information obtained through such studies may lead to certain findings of practical utility for effective conduct of the Smart class programme. The present study under investigation will be one such attempt.

6.2 Statement of the Problem

“Attitude of principals, teachers and students towards educational media and its utilisation at secondary school stage in Lucknow city.”

6.3 Definition of Key Words

Attitude: - Thurstone & Chave (1929) had defined Attitude as the degree of positive or negative effect associated with some psychological object.

Educational Media: - Educational media refers to transparencies through overhead projectors or PowerPoint presentations or educational smart classes that are designed to teach school students directly or indirectly in classroom whose basic purpose is to contribute to the education of its listeners or viewers rather than entertain.

Utilization: - Utilization refers to the use of educational smart class programme, overhead projectors and computers by school teachers for education of their students.

Secondary School Stage: - Class IX and X in a school is known as secondary school stage.

6.4 Objectives

- 1) To study the attitude of Principals towards Educational Media at secondary school stage in relation to their board of the school, gender, age and teaching experience.
- 2) To study the utilization of Educational Media according to the Principals at secondary school stage in relation to their board of the school, gender, age and teaching experience.
- 3) To study the extent of utilization of Overhead Projector, Computer and Smartclass in CBSE and ICSE board schools according to the Principals at secondary school stage.
- 4) To study the attitude of Teachers towards Educational Media at secondary school stage in relation to their board of the school, gender, age, teaching experience and teaching subject.
- 5) To study the utilization of Educational Media by the Teachers at secondary school stage in relation to their board of the school, gender, age, teaching experience and teaching subject.
- 6) To study the extent of utilization of Overhead Projector, Computer and Smartclass in CBSE and ICSE board schools by the Teachers at secondary school stage.
- 7) To study the competence level of Teachers in using educational media at secondary school stage in relation to their board of the school, gender, age, teaching experience and teaching subject.
- 8) To study the attitude of students towards Educational Media at secondary school stage in relation to their board of the school and gender.
- 9) To study the utilization of Educational Media according to the Students at secondary school stage in relation to their board of the school and gender.

10) To study the extent of utilization of Overhead Projector, Computer and Smartclass in CBSE and ICSE board schools according to the students at secondary school stage.

6.5 Hypotheses

1.1 There is no significant difference in the attitude of principals of CBSE and ICSE board schools towards educational media at secondary school stage.

1.2 There is no significant difference in the attitude of male and female principals towards educational media at secondary school stage.

1.3 There is no significant difference in the attitude of principals in the age group of 21- 40 years and the principals in the age group of 41-60 years towards educational media at secondary school stage.

1.4 There is no significant difference in the attitude of principals with a teaching experience of 1-20 years and the principals with a teaching experience of 21-40 years towards educational media at secondary school stage.

2.1 There is no significant difference in the utilization of educational media in CBSE and ICSE board school according to the principals at secondary school stage.

2.2 There is no significant difference in the utilization of educational media according to male and female principals at secondary school stage.

2.3 There is no significant difference in the utilization of educational media according to principals in the age group of 31-45 years and 46-60 years at secondary school stage.

2.4 There is no significant difference in the utilization of educational media according to the principals with a teaching experience of 1-20 years and 21-40 years at secondary school stage.

3.1 There is no significant difference in the extent of utilization of Overhead Projector and Computer in CBSE board schools according to the principals at secondary school stage.

3.2 There is no significant difference in the extent of utilization of Computer and Smartclass in CBSE board schools according to the principals at secondary school stage.

3.3 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector in CBSE board schools according to the principals at secondary school stage.

3.4 There is no significant difference in the extent of utilization of Overhead Projector and Computer in ICSE board schools according to the principals at secondary school stage.

3.5 There is no significant difference in the extent of utilization of Computer and Smartclass in ICSE board schools according to the principals at secondary school stage.

3.6 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector in ICSE board schools according to the principals at secondary school stage.

4.1 There is no significant difference in the attitude of teachers of CBSE and ICSE board schools towards educational media at secondary school stage.

4.2 There is no significant difference in the attitude of male and female teachers towards educational media at secondary school stage.

4.3 There is no significant difference in the attitude of teachers in the age group of 21-40 years and teachers in the age group of 41-60 years towards educational media at secondary school stage.

4.4 There is no significant difference in the attitude of teachers with a teaching experience of 1-15 years and teachers with a teaching experience of 16-30 years towards educational media at secondary school stage.

4.5 There is no significant difference in the attitude of teachers teaching science subjects and teachers teaching arts subjects towards educational media at secondary school stage.

5.1 There is no significant difference in the utilization of educational media by the teachers in CBSE and ICSE board school at secondary school stage.

5.2 There is no significant difference in the utilization of educational media by male and female teachers at secondary school stage.

5.3 There is no significant difference in the utilization of educational media by teachers in the age group of 21-40 years and 41-60 years at secondary school stage.

5.4 There is no significant difference in the utilization of educational media by the teachers with a teaching experience of 1-15 years and 16-30 years at secondary school stage.

5.5 There is no significant difference in the utilization of educational media by the teachers who teach Science subjects and teachers who teach Arts subjects at secondary school stage.

6.1 There is no significant difference in the extent of utilization of Overhead Projector and Computer by the teachers in CBSE board schools at secondary school stage.

6.2 There is no significant difference in the extent of utilization of Computer and Smartclass by the teachers in CBSE board schools at secondary school stage.

6.3 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector by the teachers in CBSE board schools at secondary school stage.

6.4 There is no significant difference in the extent of utilization of Overhead Projector and Computer by the teachers in ICSE board schools at secondary school stage.

6.5 There is no significant difference in the extent of utilization of Computer and Smartclass by the teachers in ICSE board schools at secondary school stage.

6.6 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector by the teachers in ICSE board schools at secondary school stage.

7.1 There is no significant difference in the competence level of teachers in using educational media in CBSE and ICSE board schools at secondary school stage.

7.2 There is no significant difference in the competence level of male and female teachers in using educational media at secondary school stage.

7.3 There is no significant difference in the competence level of teachers in using educational media who are in the age group of 21-40 years and 41-60 years at secondary school stage.

7.4 There is no significant difference in the competence level of teachers in using educational media who have a teaching experience of 1-15 years and 16-30 years at secondary school stage.

7.5 There is no significant difference in the competence level of teachers in using educational media who teach science subjects and those who teach arts subjects at secondary school stage.

8.1 There is no significant difference in the attitude of students of CBSE and ICSE board students towards educational media at secondary school stage.

8.2 There is no significant difference in the attitude of boys and girls towards educational media of secondary school stage.

9.1 There is no significant difference in the utilization of educational media in CBSE and ICSE board school according to the students at secondary school stage.

9.2 There is no significant difference in the utilization of educational media according to boys and girls at secondary school stage.

10.1 There is no significant difference in the extent of utilization of Overhead Projector and Computer in CBSE board schools according to the students at secondary school stage.

10.2 There is no significant difference in the extent of utilization of Computer and Smartclass in CBSE board schools according to the students at secondary school stage.

10.3 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector in CBSE board schools according to the students at secondary school stage.

10.4 There is no significant difference in the extent of utilization of Overhead Projector and Computer in ICSE board schools according to the students at secondary school stage.

10.5 There is no significant difference in the extent of utilization of Computer and Smartclass in ICSE board schools according to the students at secondary school stage.

10.6 There is no significant difference in the extent of utilization of Smartclass and Overhead Projector in ICSE board schools according to the students at secondary school stage.

6.6 Delimitations

- 1) The study is delimited to secondary schools of Lucknow.
- 2) The study is delimited to the utilization of only three educational medias; transparencies presentation through OHP, PowerPoint presentation through computer and smartclasses.
- 3) The study is confined to class IX students.
- 4) The study is confined to principals and teachers working in secondary school of Lucknow.
- 5) The study is confined to CBSE and ICSE board secondary schools.

6.7 Methodology

The present study was aimed to study the attitude of principals, teachers and students towards educational media and its utilisation at secondary school stage in Lucknow city. Therefore **descriptive survey method** was employed for the study.

6.7.1 Variables

Independent Variables of the study are personal information of Principals, Teachers and Students as: board of the institution, gender, age, teaching experience and teaching subject; while **Dependent Variables** are: attitudes of principals, teachers and students towards educational media and utilisation of educational media according to/by them.

6.7.2 Sample

The sample consisted of 40 schools with a principal, 4 teachers and 30 students from each school. Further there were 20 schools each of CBSE and ICSE board and 15 boys and 15 girls from each school. Thus the sample was of 40 principals, 160 teachers and 1200 students.

6.7.3 Tools of the Study

In the present study, for assessing the attitude of principals, teachers and students towards educational media and its utilisation at secondary school stage, no appropriate standardised tool was available. Hence the researcher used a self developed standardized scale. Following tools were used for the study:-

- 1) Attitude Towards Educational Media Scale (ATEMS) for Principals and Teachers of Secondary Schools
- 2) Attitude Towards Educational Media Scale (ATEMS) for Students of Secondary Schools
- 3) Utilisation of Educational Media Questionnaire (UEMQ) for Principals of Secondary Schools

- 4) Utilisation of Educational Media Questionnaire (UEMQ) for Teachers of Secondary Schools
- 5) Utilisation of Educational Media Questionnaire (UEMQ) for Students of Secondary Schools

6.7.4 Data Analysis

The analysis of the results has been discussed in two ways:-

- 1) By calculating Frequency, Percentage.
- 2) By calculating Mean, SD and applying *t*-test. The analysis of results has been discussed as per the objectives of the study and hypotheses have been tested at 0 .05 level of significance.

6.8 Findings

Objective No.1

- 1) Attitude of Female principals is more favourable than that of Male principals towards educational media at secondary school stage
- 2) Attitude of Principals in the age group of 31-45 years is more favourable than that of Principals in the age group of 46-60 years towards educational media at secondary school stage.
- 3) There is no significant difference in the attitude of Principals towards educational media at secondary school stage in relation to their board of the school and teaching experience.

Objective No. 2

- 1) Utilisation of any type of educational media is done more according to female principals as compared to male principals at secondary school stage.

- 2) Utilisation of any type of educational media is done more according to the principals with a teaching experience of 21-40 years than the principals with a teaching experience of 1-20 years at secondary school stage.
- 3) There is no significant difference in the utilization of educational media according to the Principals at secondary school stage in relation to their board of the school and age.

Objective No. 3

- 1) Usage of Computer is more than the Smartclass according to the Principals of CBSE board school at secondary school stage.
- 2) Usage of OHP is more than the Smartclass according to the Principals of CBSE board school at secondary school stage.
- 3) Usage of Computer is more than the Smartclass according to the Principals of CBSE and ICSE board school at secondary school stage.
- 4) There is no significant difference in the extent of utilization of OHP and Computer in CBSE and ICSE board according to the Principals of secondary school stage.
- 5) There is no significant difference in the extent of utilization of Computer and Smartclass in ICSE board school according to the Principals of secondary school stage.
- 6) There is no significant difference in the extent of utilization of Smartclass and OHP in ICSE board school according to the Principals of secondary school stage.

Objective No. 4

- 1) Attitude of Female teachers is more favourable than that of Male teachers towards educational media at secondary school stage.
- 2) Attitude of teachers teaching science subjects is more favourable than teachers teaching arts subject towards educational media at secondary school stage.
- 3) There is no significant difference in the attitude of teachers towards educational media at secondary school stage in relation to their board of school, age and teaching experience.

Objective No.5

- 1) Usage of any type of educational media is done more by the teachers with a teaching experience of 1-15 years than the teachers with a teaching experience of 16-30 years at secondary school stage.
- 2) Usage of any type of educational media is done more by the teachers who teach science subjects as compared to the teachers who teach arts subject at secondary school stage.
- 3) There is no significant difference in the utilisation of educational media by teachers at secondary school stage in relation to their board of the school, gender and age.

Objective No. 6

- 1) Usage of Computer is more than the Smartclass and OHP by the Teachers of secondary school stage.
- 2) Usage of Smartclass is more than the OHP by Teachers of secondary school stage.

- 3) Usage of Computer is more than OHP by teachers of CBSE and ICSE board at secondary school stage.
- 4) Usage of Computer is more than Smartclass by teachers of CBSE board school at secondary school stage.
- 5) Usage of Smartclass is more than OHP by teachers of ICSE board at secondary school stage.

Objective No. 7

- 1) Competence level of using educational media of teachers with a teaching experience of 1-15 years is more than that of teachers with a teaching experience of 16-30 years at secondary school stage.
- 2) Competence level of using educational media of teachers teaching Science subjects is more than that of teachers teaching Arts subjects at secondary school stage.
- 3) There is no significant difference in the competence level of teachers in using educational media at secondary school stage with respect to their board of the school, gender and age .

Objective No. 8

- 1) Attitude of boys of CBSE Board is more favourable than that of boys of ICSE Board towards educational media at secondary school stage.
- 2) There is no significant difference in the attitude of Boys and Girls towards educational media at secondary school stage.
- 3) There is no significant difference in the attitude of students of CBSE and ICSE board school.

Objective No. 9

- 1) Usage of any type of educational media is more according to the boys as compared to girls at secondary school stage.
- 2) Usage of any type of educational media is more according to boys of CBSE board as compared to girls of CBSE board and Boys of ICSE board.

Objective No. 10

- 1) Usage of Computer is more as compared to OHP according to the Students of secondary school stage.
- 2) Usage of Computer is more than the Smartclass according to the Students of secondary school stage.
- 3) Usage of OHP and Computer is more in CBSE board as compared to ICSE board according to students of secondary school stage.
- 4) Usage of Smartclass is more in ICSE board as compared to CBSE board according to students of secondary school stage.
- 5) Usage of Computer is more than Smartclass in CBSE board school according to students of secondary school stage.
- 6) Usage of Smartclass is more than computer in ICSE board school according to students of secondary school stage.
- 7) Usage of Smartclass is more as compared to OHP according to the Students of CBSE and ICSE board school at secondary school stage.

6.9 Conclusion

It is an important result that Principals Teachers and Students agreed with positive effects of Educational Media. One of the major findings of the study was that there was a significant difference between gender means of Principals and Teachers. These

findings were consistent with past studies that did find significant gender difference in attitudes towards educational technology. With developments in the ICT the gender differences will remain. There is a risk that these differences will increase with each passing day. Thus it can be concluded that all the variables in the study are by and large related as in different contexts of Principals, Teachers and Students of secondary school stage in terms of their attitude towards Educational Media and its subsequent utilization. Despite of the differences observed in terms of board of institution, gender, age, teaching experience and teaching subject among Principals, Teachers and Students of secondary school stage there is universalisation among them for attitude towards educational media and its utilisation.

6.10 Suggestions

For School Authorities

- Administrators should encourage principals and principals should encourage teachers to participate in educational media conferences. They should obtain new information about educational media and should share their ideas with the experts.
- There should be adequate educational medias available in the school.
- There should be generators for continuity of electricity as well as Wi-Fi connectivity in the whole campus.
- School authorities can organize meetings of principals and teachers regarding the discussion of general problems faced by them while teaching through educational media.

For Principals

- It is the duty of the principals to work for the enhancement of their staff members by updating the institution with new technologies from time to time.
- Principals can motivate and reinforce their teachers by giving proper feedback to their views and queries.
- Principals can organize meetings with their staff members regarding their problems and should welcome their suggestions too for the upliftment and upgrading of the institution.
- Principals can ask teachers to develop their own teaching material for teaching and learning.
- Principals can recruit technical assistants to support teachers in development of teaching learning material.

For Teachers

- Teachers must design an exciting teaching and learning environment that can arouse students' interest in respective subject. Therefore the selection of appropriate educational media is very important in influencing students' attitude towards learning.
- Teachers have their own freedom in choosing their desired teaching materials and they may also use initiatives based on their creativity to make decisions in their teaching plan. Learning approach that is flexible and systematic should be implemented in order to attract students' attention and improve the quality of teaching and learning in the subject.

- Besides that teachers also need to identify the type of media that meet the students' need in creating more effective teaching and learning process thus will improve the students' achievements in the subject.
- Teachers can assess themselves for their own competence to use any type of educational media.
- Teachers can be given professional training for the use of educational media to integrate these medias in their teaching process.
- Teachers should be updated with new and upcoming information and technological trends.

For Students

- The application of educational media can be used by the students themselves according to the suitability of the materials on a subject.

For Policy Makers

- In the formulation of new education policies, the concept of educational media should be given due importance.
- Training related to use of educational media and the ways to incorporate in teaching process should be emphasized in teacher education programme.
- Proper guidelines should be given on how to inculcate educational media in teaching learning process.

For Further Researches

- The study was delimited to secondary school stage only; it can be conducted on other stages of school too.

- Present study was delimited to three educational media only namely transparencies, PowerPoint presentations and smartclasses; it can be conducted on other medias too.
- Present study was delimited to Lucknow city only. To make it universalized it can be conducted in other cities or even a state too.
- The study could be followed on international level too by applying online tool to make the study more generalized and intensive.
- The role of teachers/learners in the changing scenario created by explosion of communication technologies at school level could be undertaken.
- Impact of educational media teaching on class discipline can be undertaken
- Effect of educational media teaching on the development of personality factors of learners/teachers could be investigated.
- The role of educational media in reducing the curriculum load on young children could be undertaken.

6.11 Educational Implications

In the light of the findings of the present study, certain educational implications can be discussed here:-

- The present study provides the knowledge regarding status of attitude of principals, teachers and students towards educational media and its utilisation. This may help to suggest measures to improve their attitude towards educational media and more and better utilisation of educational media in teaching learning process.
- The study provides the factor that influences the use or technology in education. The factors can be studied and changes can be made to overcome those barriers.

- The present study provides valuable suggestions for school authorities, principals, teachers and students that may be useful for the progress of them.
- The finding of the study may help policy makers in preparing policies for the wellbeing and betterment of the teaching learning process.
- This study can be used as the source of information to design new strategies and techniques for improving teacher effectiveness, competence level and up gradation of the personnel engaged in the teaching learning process.
