

CHAPTER II

REVIEW OF RELATED LITERATURE

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2.1.0 INTRODUCTION

The rationale, objectives, hypotheses were given in the previous chapter. This chapter deals with the review of related literature. Investigator consulted researches related to Video Instructional Material and classified researches in different groups. This has been given under headings like Effectiveness of Audio Material and Effectiveness of Audio Visual Material. Effectiveness of Audio Visual Material is given under headings Effectiveness of Video

Instructional Material and Effectiveness of Educational Television. In last sum up of all researches and Implications of review of related literature for the present study are given.

2.1.1 EFFECTIVENESS OF AUDIO MATERIAL

In light of the above classification researchers namely, Shrivatava (1974), Biswal (1980), Passi, Katiyar, Sansanwal and syag (1980), Kaur (1981), Dhamija (1985), Chaudhary (1990), Sumitra (1991), Behera (1997) conducted researches related to Audio Media and Achievement of students in different subjects. The details of these studies are given chronologically as follows.

Shrivastava (1974) conducted a study on evaluation of school broadcaste programmes of Madhya Pradesh, Maharashtra and Gujrat with reference to quality of content and broadcaste. Whose objectives were: (i) to find out the present position of scool broadcasts by surveying and studying the various aspects of the system, (ii) to make an assessment of the system by obtaining opinion of various persons involved in the process. (iii) To give practicle suggestions for improvement so that it may become more scientific and effective (iv) to review and clarify those fundamentals of psychology which have direct bearing on learning situations in the school broadcasts and to highlight the implications for good teaching practices (v) To find out difficulties experienced by teachers and students while listening to these programs in classroom (vi) to examine the validity of these programs through specific evaluation schedule and (vii) to construct utilization and evaluation schedule together with guidelines for guidelines for different activities before, during and after broadcasts. The sample comprised of 200 schools randomly selected from Madhya Pradesh, Maharashtra and Gujrat who listened to radio programs. Data were collected from All India Radio stations in the western region namely, Bhopal, Indore, Bombay, Nagpur, Poona, Ahmedabad, Baroda and Rajkot. Producers, script writers and directors were interviewed. The study employed normative and historical method of research. The data were analyzed by computing correlation, chi-square and percentages. The findings were: (i) The Subject committee only approved the subject matter and content of the subject. The scriptwriters worked only the producers. The writers made necessary provisions for music so as to make learning process effective. (ii) The appropriate forms for presentation, such as dramatization, plays, dialogue, conversation, discussion with students, narration and question answer were appreciated by teachers, educators and students. These were useful in motivating students,

creating interest them and holding their attention. (iii) The quality of reception was fair in Madhya Pradesh while in Maharashtra and Gujrat it was good. The delivery of school broadcasts was, by and large, appropriate. Fast and slow speeds were also reported. (iv) School broadcasts were useful in enriching and extending the work of teachers but could not replace the classroom teaching. (v) No attempt was made to associate students with the organization of these programs. (vi) there was no uniformity in the lessons in different subject broadcasts. (vii) The programs could be improved by adjusting them to the course, better planning, cooperation of the AIR staff, provision of trained staff, and regular inspection by educational authority etc.

Biswal (1980) developed strategies for effective utilization of school broadcasting program in Orrisa. The objectives were: (i) to study the school broadcast programme in terms of instructional objectives, number of programs broadcast, content coverage, script writing and quality of program; (ii) to develop and tryout instructional strategies for the effective utilization of school broadcast programs. The All India Radio, Cuttack, and the school listening to the broadcast programs were the samples of the study. Questionnaire, Criterion test and interview schedule developed by the investigator were used as tools for collection of data. Data were analyzed with the help of analysis of variance and qualitative techniques. The findings of study were (i) Teachers felt that English lessons were difficult for students to understand. (ii) Students had interest in listening to radio lessons and half of the students expressed the desire to have radio lessons daily (iii) Students achievement was found to be above 56 percent in two programs, above 60 percent in ten programs and above 70 percent in four programs that were selected for this purpose (iv) The strategies developed for effective utilization of school broadcast programs were significantly effective when compared to the radio broadcast alone. Students and teachers favoured the strategies.

Passi et.al. (1980) evaluated radio broadcasts for primary and middle school teachers. The objectives of the investigation were: (i) to know the opinion and reasons for broadcasting educational programmes for teachers.(ii) to study the difficulties faced by teachers for teaching (iii) to study the difficulties faced by teachers for teaching various subjects and (iv) To prepare a list of topics on which teachers like to wrote lessons for radio broadcast. The sample of the survey consisted of 524 teachers of primary and middle schools situated both in

urban and rural areas of M.P. Data collected with the help of open ended questionnaire and data were analyzed with the help of percentage. The findings of the investigation were (i) Majority of teachers (88 %) liked to have a separate broadcast for teachers. (ii) The teachers liked to have broadcast of thirty minutes duration in the evening (iii) Majority of teachers (80%) were of the opinion that they had difficulties in teaching language, Science, Mathematics and Geography and (iv) the teachers liked to listen to broadcasts related to the ways of motivating and creating interest among students for teaching language and science, maintaining discipline in classroom as well as schools.

Kaur (1981) studied the effectiveness of self instructional audio cassettes in developing teaching skills among B.Ed students. The objectives of the study were:(i) To develop instructional material for the skills of probing questioning, explaining and illustrating with examples (ii) To prepare audio cassettes of the instructional material prepared by the investigator for the above mentioned teaching skills (iii) To develop the skills of probing questioning, explaining and illustrating with examples through self instructional audio cassettes on the general teaching competence of student teachers. The sample consist of thirty two students teachers taken from Dev Samaj College of Education for woman, Firozpur City. The tools used were Raven's Standard Progressive Matrices, Socio-Economic Status Scale (Kuppuswamy), Junior Index of Motivation (Frymier), a questionnaire for student teachers, self instructional audio cassettes, Baroda General Teaching Competency Scale prepared at the CASE, and observation schedule for the skill of probing questioning, explaining and illustrating with examples. The finding of the study were (i) Teachers of both the experimental groups made continuous progress component wise and as as a whole in the skills of probing questioning, explaining and illustrating with examples.(ii) The techniques of teaching also helped continuous progress in the performance of students teachers (iii) Both the techniques of training, traditional and microteaching were effective in improving general teaching competency of student teachers (iv) The experimental groups exposed to both the treatments showed better performance than the control group exposed to the traditional techniques only (v) The self instructional audiocassettes were effective for developing different teaching skills.(vi) Immediate, pinpointed and self feedback through audiocassettes was an effective way of improving the performance of student teachers in the use of different teaching skills.

Dhamija (1985) compared the achievement of class VII students in Geography when taught through different approaches viz, radio-vision, modular and conventional. The objectives of the study were: (i) to compare the achievement of students of class VII in social studies when taught through three different approaches, viz. radio-vision, modular and conventional. (ii) To compare the achievement of students in Geography when taught through these three approaches. (iii) To compare the achievement of students in Civics when taught through these three approaches. (iv) To compare the achievement of students in History when taught through these three approaches. (v) To compare the retention of these three approaches. (vi) To compare the retention of students in Civics when taught through these three approaches. (vii) To compare the retention of students in History when taught through these three approaches. (viii) To compare the students' involvement in Geography when taught through three approaches. (ix) To compare the students' involvement in Civics when taught through three approaches. (x) To compare the students' involvement in History when taught through three approaches. (xi) To compare the self-confidence of students in Geography when taught through these three approaches. (xii) To compare the self-confidence of students in Civics when taught through these three approaches. (xiii) To compare the self-confidence of students in History when taught through these three approaches. The sample of the final study comprised of 30 students in each of three different schools. The students were selected on the basis of their intelligence scores. In total there were 90 students. The sample of the confirmatory study comprised 90 students belonging to one school. These students were also selected on the basis of their intelligence scores. In the final study stage three schools formed three parallel groups for three approaches of teaching, viz. radio-vision, modular and conventional. So a three-way factorial design (3 x 3 x 3) was followed where three factors were involved, namely approaches of teaching (radio-vision, modular and conventional), intelligence (high, middle and low) and testing occasions (pretest, post-test, and retention test). In the confirmatory study, students in one school were divided into three parallel groups. These groups of students were taught by three approaches of teaching radio-vision, modular and conventional and later on the teaching methods were rotated in a Latin square design. In both the stages, Social Studies comprised three different disciplines, namely, Geography, Civics and History. These three subjects were taught one by one with the help of three different approaches of teaching. The students were administered the achievement test, retention test, Students' Self Confidence Scale, and Students' Involvement Scale. The achievement and retention test comprised a criterion test. The test-retest reliability coefficient of Students' Self Confidence Scale was 0.86 and validity coefficient 0.75. The

test-retest reliability coefficient of Students' Involvement Scale was 0.89 and validity 0.72 against the criterion of students' achievement scores. The findings were: (i) Achievement of students was highest when taught through radio-vision approach. (ii) The retention of knowledge, comprehension and total achievement scores were the highest in that group of students who were taught Geography through radio-vision approach.

Chaudhary (1990) assessed the impact of an audio intervention program aiming to sensitize Anganwadi workers. The objectives of the study were (i) to promote cognitive skills in children such as sequential, thinking, problem solving and concept formation (ii) to inculcate among childrens awareness of their immediate environment (iii) to develop in teacher/Aganwadi workers the skills to use the play way activity method in teaching young childrens (iv) to develop in teachers/Aganwadi workers a positive attitude towards disadvantage childrens. Eight ICDS sectors of Kota, four sectors formed the experimental group and four formed the control group. Audio programmes were prepared keeping in view the developmental level and the abilities of children, and the need of community. The findings of the study were (i) It was found that Aganwadi childrens gained significantly more than their counterparts in the control group in capabilities like listening comprehension, verbal expression, vocabulary gain and sequencing thinking. However, no significant difference was found between the experimental and control groups of primary schools.

Sumitra (1991) conducted case study of the audio cassette project of Hoshangabad (M.P.) for teaching Hindi. The objectives of the study were (i) to study the utilization and effectiveness of audio cassettes in village primary schools for language development and listening comprehension (ii) to study the management strategies to achieve objectives (iii) to study the teacher's acceptability of the media (iv) to identify the types of programs understood, remembered and repeated more often than others and to identify their production characteristics. The sample comprised of 450 primary schools of Hoshangabad district of Madhya Pradesh. From these schools, there were 900 teachers and 31,345 students of class I, II and III for three years. For collecting data 308 programmes, 17 audio cassettes and 50 two in one tape recorder were used. The tools used included questionnaires, observation schedule and recording of children's responses. The collected data were analyzed with the help of percentage, average and ranking. The findings of the study were (i) Children when

interviewed showed their happiness about the programs and wanted to listen to more of such programs (ii) the best liked programs were those which had segments of songs, stories, questions and activities.

Behera (1997) studied the Effect of Radio Intervention Program on the Language and Cognitive Development of Pre-School Children. The objectives of this study were: (i) to study the effectiveness of the Radio Intervention Program on the language development of the pre-school children. (ii) To study the effectiveness of the Radio Intervention Program on the cognitive development of the pre-school children. (iii) To study the effect of Radio Intervention Program on the language development of pre-school children in relation to their age, sex, and socio-economic status (SES). (iv) To study the effect of Radio Intervention Program on the cognitive development of pre-school children in relation to their age and sex. The hypotheses stated were: (i) The Radio Intervention Program will have a positive effect on the language development of pre-school children. (ii) The Radio Intervention Program will have a positive effect on the cognitive development of pre-school children. (iii) The effect of Radio Intervention Program on the language development of pre-school children will differ significantly at different age levels. (iv) The effect of Radio Intervention Program on language development of pre-school children will not differ significantly with difference in sex. (v) The effect of Radio Intervention Program on the language development of pre-school children will differ significantly with different SEX levels. (vi) The effect of Radio Intervention Program on the cognitive development of pre-school children will differ significantly at different age levels. (vii) The effect of Radio Intervention Program on the cognitive development of pre-school children will not differ significantly with difference in sex. (viii) The effect of Radio Intervention Program on the cognitive development of pre-school children will differ significantly with different SES levels. In all, 100 pre-school children of 3-6 years (Boys and Girls) were included in the Sample. Further, 10 Anganwadi Centres of the Thanesar Block (Kurukshetra, Haryana) and 10 children were selected from each Anganwadi randomly. Equal number of Anganwadi Centres (five each) were included in the experimental and control groups. As per the requirements of the study "Randomized Groups Pretest-Posttest Design" was followed. The following tools were used for the collection of data: (i) Language Development Test developed by NCERT; (ii) Cognitive Development Test developed by NCERT; (iii) Socio-economic Status Scale developed by S.P. Kulshreshtha and (iv) Monitoring Proforma, adopted by the researcher. The statistics

used for this purpose were Means, SD t-test, bar diagrams. The main findings were: (i) The Radio Intervention Program had a positive effect on the listening comprehension of the pre-school children. (ii) The Radio Intervention Program had a positive effect on the vocabulary of the pre-school children. (iii) The Radio Intervention Program had also positively affected the overall language development of the pre-school children. In general the gains of the experimental group in language development were not only significant but much higher than the control group. (iv) The Radio Intervention Program had a positive effect on the awareness of the immediate environment of the pre-school children. (v) The Radio Intervention Program had a positive effect on the awareness of the cultural heritage of the pre-school children. (vi) The Radio Intervention Program had a positive effect on the development of concept of colour and shape among pre-school children. (vii) The Radio Intervention Program had a positive effect on the sequential thinking of the pre-school children. (viii) The Radio Intervention Program had also positively affected on the sequential thinking of the pre-school children. In general the gains of the experimental group in cognitive development were not only significant but much higher than the control group (ix) The Radio Intervention Program was not found to be differently affecting the language development of the pre-school children at different age levels. (x) The Radio Intervention Program was not found to be differently affecting the cognitive development of pre-school children at different age levels (xi) The Radio Intervention Program was not found to be differently affecting the language development of pre-school boys and girls (xii) The Radio Intervention Program was not found to be differently affecting the cognitive development of the pre-school boys and girls (xiii) The Radio Intervention Program was not found to be differently affecting the language development of the pre-school children at different SES levels (xiv) The Radio Intervention Program was not found to be differently affecting the cognitive development of the pre-school children at different SES level.

2.1.2 EFFECTIVENESS OF AUDIO VISUAL MATERIAL

Effectiveness of Audio Visual Material has been given under two captions that are Effectiveness of Video Instructional Material and Effectiveness of Educational Television. Details are as follows.

2.1.2.1 EFFECTIVENESS OF VIDEO INSTRUCTIONAL MATERIAL

In the light of above discussion researchers, namely, Muddu (1978), Jeyachandran (1980), Kumar (1981), Oberai (1981), Andrews (1985), Barve (1986), Clarke (1986), James (1988), Yadav (1988), Antonysamy (1989), NCERT and DAVV Project (1989), Narayanasamy (1991), Idayavani (1991), Kalimuthu (1991), Sinnathambi (1991), Chitale (1993), Napapong (1993), Pandya (1994), Joshi (1995), Lal (1996), Ilangovan (1997), Joshi (1997) Marthandavarma (1997), Tiwari (1997), Shinde (2002), Vekaria (2002), shukla (2003), Shehnaj (2006), Shinde (2007) and Gupta (2008) studied the effectiveness of video instructional material. The details of these studies are given below.

Muddu (1978) studied the effectiveness of the use of motion pictures as aids in the teaching as compared to usual method. The sample of students (30 students in each group) was assigned to the experimental and control groups randomly. The students belonged to class VIII and their age ranged from 12-14 years. The data were collected by administering achievement tests on topics taught to them before and after the treatment. The data were analyzed with the help of t-test. The findings students to comprehend the subject matter. (ii) The use of films in teaching helped in learning more in lesser time and better retention of what learnt.

Jeyachandran (1980) studied the efficacy of programmed filmstrips as a method of teaching history. The objective was to develop and validate the software materials for media. The sample was chosen from nine schools of the city of Madras. The sample consisted of 450 boys and 315 girls. The subjects were divided into three groups that were taught through three different methods, namely, teacher with programmed filmstrip, programmed filmstrip without teacher and conventional method. Tool used was achievement test developed by the investigator. The data were analyzed by employing the statistical technique Bartlett's F-test. The findings were: (i) Teacher had an important role when self learning techniques were employed. (ii) Higher cognitive abilities could be developed through programmed filmstrip.

Kumar (1981) compared the effectiveness of methods of instruction and multi media method. The objectives of the investigation were: (i) to find out the relative effectiveness of the three methods of instruction - expository method, programmed learning method and multi-media method. (ii) To study the relative retention in learning through these three

methods. (iii) To develop a program in branching style on the selected unit of content in biology. (iv) To develop multimedia text on the programmed content. In order to experimentally study the relative effectiveness and the interaction between the three methods and two levels of intelligence, a 3X2 factorial design was employed. The Biology students of Classes IX and X of two Inter Colleges formed the sample of study. In all, 180 students were divided into three groups of sixty students each. One group was given instructions through programmed learning method, the other through expository method and the third group through the multi-media method. All the students of three groups were administered the criterion test as pretest, then on the completion of the respective treatments these three groups were again administered the criterion test. After fifteen days, the same criterion test was re-administered. It was found that (i) the multimedia method was more effective than either the programmed learning method or the expository method. (ii) The programmed learning method was more effective than the expository method. (iii) Retention in learning by the multi-media method was higher than by the other two methods (iv) Retention in learning by the programmed learning group and the expository group was equal (v) There was no interaction between the three methods of instruction and the levels of intelligence.

Oberai (1981) evaluated radio vision as an instructional system. The objectives of the investigation were: (i) to compare the effectiveness of the radio vision method of instruction with the traditional method of instruction in terms of academic gains on the part of the subjects. (ii) To study how far the instructional objectives set for each lesson were fulfilled by instruction through radio vision with the help of teachers' ratings. (iii) To compare the effectiveness of radio vision as a medium of instruction with certain methods of classroom instruction with or without radio vision in terms of academic gains on the part of the students. (iv) To study how far the instructional objectives set for each lesson were achieved by instruction through radio vision with black-and-white slides and radio vision with colour slides with the help of teachers' ratings. The pilot study was conducted on the students of classes VIII and IX of the Government Boys' Secondary and Girls' Secondary School in Dausa, Rajasthan. In all, 125 students were selected randomly from both the schools. The final experiment was conducted on the students of class IX of the same school. Pretest-posttest control group design was used for the experiment. Data were collected by using Jalota's Group Test of Mental Ability, Srivastava's Socio-Economic Status Scale, criterion test, and interview schedule for students, a questionnaire for teachers, observers' class profile

and attention measures. The data were analyzed with the help of t-test and F-test. The findings of the study were: (i) the radio vision groups obtained significantly higher mean scores on the recognition test than the group receiving instruction through the traditional method. (ii) All the radio vision groups, except the black-and-white radio vision group, obtained significantly higher mean gain scores than the group receiving instruction through the traditional method in the final-experiment. (iii) With respect to the recall test, the group receiving instruction through color radio vision plus workbook obtained significantly higher mean scores on the criterion test than the remaining six groups. (iv) The majority of the teacher's opinion that most of the students found the radio vision method interesting. (v) The attention profiles of different radio vision groups indicated that radio vision could attract the attention of very high percentage of students and sustain their attention throughout the length of the presentation.

Andrews (1985) compared the effectiveness of instructional feedback provided through interactive video and by traditional method. Experimental treatment was compared along with the variables of types of feedback and frequency of interaction. Post questions were on the basis of interaction involving 23 instructional objectives. Sample was divided into video feedback group received only verbal corrective feedback. The results indicated that the use of video feedback was shown to be significant more effective than the use of verbal feedback particularly for higher video relevant times and use of frequent interaction was shown to be significantly more effective than infrequent interaction.

Barve (1986) compared the effectiveness of teaching with the help of filmstrips and traditional practice of teaching. The researcher developed the filmstrips based on units of science from the syllabus. In order to study the effectiveness of the filmstrip, the researcher used untreated control group design with pretest/posttest. The students for the experiment were chosen by the incidental sampling method. Achievement test was administered to both the groups before and after treatment. The test scores were analyzed by using analysis of variance. The findings were: (i) Filmstrip was more effective than the traditional method of teaching the facts, principles and concepts in science. (ii) Film strip was effective as teaching aid for all levels of learner.

Clarke (1986) compared performance of preservice teachers group receiving instruction through video interactive in a standard classroom setting. A randomized control group pretest posttest design was utilized. Sample comprised preservice teachers at the University of Florida during the Fall Semester of 1986. The experimental group received the instruction using an interactive video presentation, while the control group received a standard presentation. Investigator used analysis of covariance to compare the achievement to the experimental group with that of the control group and amount of time needed to complete instruction was analyzed using analysis of variance. The results indicated that the interactive video presentation took significantly less time than the lecture based presentation.

James (1988) studied the effectiveness of Video Instructional Material on Advance Organizer Model in terms of understanding. Reaction of teacher trainees towards Advance Organizer Model and reaction towards technical aspects of developed video Cassette. Sample comprised 38 B.Ed. students, 10 M.Ed. students and 11 M.Phil. Student's Single group post-test design was used. Theory check-up of AOM, general reaction scale for utility of AOM and reaction scale towards video instructional material were the tools used by the investigator. Data were analyzed by using chi-square with Yates correlation. Results indicated that viewers understood most of the items of AOM. VIM has helped in understanding the various concepts discussed therein and attitude towards model and towards VIM were found to be favorable.

Yadav (1988) completed a study on "Development of video instructional material on Inquiry Training Model". The sample comprised B.Ed., M.Ed. and M.Phil students and teacher educators of Uttar Pradesh, Madhya, Pradesh and Saurashtra. Post test single group design was employed. The theory check up of ITM for assessing theoretical understanding was used. General reaction scale for utility of ITM and reaction scale towards Video Instructional Material were the tools used by the investigator. Data were analyzed by computing percentile and percentage. Apart from this the chi-square test, t-test and 2x2 factorial design ANOVA of unequal cell size were used for analyzing the data. Results were: (i) Viewers understood most of the items of ITM. (ii) Developed video instructional material helped in understanding the various concepts described therein. (iii) Attitudes towards model and towards video instructional material were found favorable.

Antonysamy (1989) compared the Teaching of Environment Concepts to school dropouts through video and charts. The objectives of the investigation were: (i) To prepare a Video program on Environmental concepts, and (ii) to find out experimentally whether the video method is more effective than using charts in teaching the Environmental concepts. The sample of the study constituted 60 working children at the school in Dindigul. The pretest posttest equivalent groups design was employed. The experimental group was taught through Video lessons on 'Environmental Concepts' and the same lessons were taught to the control group using charts. A video program on 'Environmental Concepts' lasting for 40 minutes was produced for this study. The t-test was applied for statistical analysis. It was found that learning through viewing of the video films was more effective than learning through charts.

NCERT and DAVV Project (1989) on relative effectiveness of two training strategies of developing teaching competency and attitude towards teaching among student teachers revealed interesting findings on video programs. In this project teaching skills in Micro-Teaching were video recorded. The teacher trainees were to observe video demonstration lessons during practice stage. It was found that the video demonstration supported by observation and practice was effective in developing the theoretical understanding of Micro-Teaching in B.Ed.

Narayansamy (1991) prepared video lessons for standard VI students on certain common topics and studied the effectiveness of video lessons for language teaching and learning. The sample of the study consisted of 120 students from the K.R. Government Higher Secondary School, Oddanchatram. The researcher used the pre-test post-test equivalent Control group design. The experimental group was taught the topics by the video method and the same topics were taught to the control group by the traditional method. The vocabulary test developed by the researcher was used to collect data. The t-test was used for analyzing the data. The findings were: (i) the student learned more words in language when they were taught by video lessons. (ii) The students improved their vocabulary in Tamil language after viewing the video program on language development.

Idyavani (1991) prepared a video program on 'Weathering' and 'work of the Rivers' and compared its effectiveness in comparison to traditional lecture method. The sample comprised 60 students of standard XII of the O.C.P.M. Girls Higher Secondary School, Maduria. The pre-test posttest equivalent group design was employed. The achievement test developed by the researcher was used to collect data. The t-test was used to analyze the data. The findings were (i) the students taught by the video program performed better than the students taught by the traditional lecture method. (ii) The students improved their learning of the concept after viewing the video program.

Kalimuthu (1991) prepared a video program on Environmental Pollution and tried to find out whether the video program is more effective than the traditional lecture method. The sample comprised 60 students of standard XI at K.R. Government Higher Secondary School, Ottachatram. The pre-test post-test equivalent group design was employed in the study. The achievement test in Environmental Pollution was used for collecting data and the data were analyzed with the help of t-test. The finding was that the students taught through the video program learnt more concepts of environment pollution than those who were taught by the lecture method.

Sinnathambi (1991) prepared a video program on 'Energetics' for comprising whether the video method is more effective than the traditional lecture method and to find out whether children improved their social awareness after viewing the video program on social concepts. The experimental group comprised 30 working children and an equivalent group comprised the control group. The Control Group was taught social concepts through the traditional method and Experimental Group was taught the same social concepts through video program. The treatment continued for the 60 minutes. The Social Awareness and concept were assessed with the help of a test developed by the researcher. The collected data were analyzed with the help of t-test. The findings were (i) Children taught through video program learnt more social concepts than those taught by the traditional method. (ii) Working children improved their social awareness after viewing the video program.

Chitale (1993) developed instructional material for adaptive mode of teaching applied art and study their effect. The sample comprised 66 girl students studying in pre-

specialization year of home Science degree program of S.N.D.T. college of Home Science, Pune. CIPP (context, input, process and product) model of evaluation is followed for studying the effects of using the developed instructional material in adaptive mode of teaching. The major findings were: (i) Interactive mode of teaching visual art was found feasible in existing formal educational set-up. (ii) Adaptive mode was found to be supportive to teaching visual art to promote visual perceptual sensitivity. (iii) Adaptive mode of teaching was found to be time effective. (iv) Holistic approach of presenting the content of visual art seemed to have positive effects on all the three dimensions of development, viz. cognitive, connective and affective. (v) Development of visual perceptual sensitivity was trainable skill; girl students at the age of 17+ could be trained. (vi) Development of visual perceptual sensitivity could be assessed by using the casual perceptual sensitivity test and the scheme of evaluation designed in this program. (vii) The instructional material prepared was directly usable educational product. (viii) This study added to knowledge of teaching visual art in visual interactive mode and holistic teaching based on the theories of latent learning.

Napapongs (1993) compared the relative effectiveness of the treatment variable viz. instructional video cassette, programmed video cassette and conventional method. The sample comprised of 90 students divided in three groups. Group A learned through programmed video cassette, group B learned through the instructional video cassette and group C learned through conventional method. Programmed and unprogrammed videocassette lesson plans and criterion test developed by researcher were used data collection. The 3x2x3 factorial design was used. The data were analyzed using three way ANOVA followed t-test. The findings were (i) the programmed video cassette yielded more gain than the instructional video cassette. (ii) The programmed video cassette yielded more mean gain than the conventional teaching. (iii) The conventional method yields more gains than the instructional video cassette. (iv) The three instructional strategies are equally effective for both verbal knowledge and skill at three objective categories knowledge Understanding and higher order understanding.

Pandya (1994) developed a course and Video instructional package on "Women and Law" and measure the effectiveness of package with the students of faculty of Home Science Baroda. The sample comprised of 279 students of first year of the faculty of home Science. A

Questionnaire and seven knowledge tests developed by the investigator, socio economic status scale by Desai, level of modernity by Mehta et al, Personality inventory by A. Hafeez and V.S.Shantamani were used as tool for data collection, data were analyzed by using percentage, mean value, t-test and ANOVA. The findings of study were (i) All the seven Video films were effective as there was considerable increase in the mean scores of the students achievement on post test for all the seven video films (ii) There was significant difference in gain in knowledge of students from English medium school as they learnt more in comparison to the students from vernacular school. (iii) The Science stream respondents gained significantly higher than the general stream respondents for all the seven video films (iv) the respondents from city learnt significantly higher. (v) The respondents from high socio economic status gained significantly higher from the video films in comparison to students from middle and low socio economic group (vi) There was no significant difference in learning in relation to social work background, TV and Video exposure, modernity, academic achievement and personality.

Joshi (1995) studied the medium of audio visual in relation to achievement and differential effect of audio, audio visual and audio and still picture on student's achievement. The sample comprised 60 students from class VIII divided into three sections, namely, A, B, and C. After pre-test, the experimental group was exposed to different types of audio visual media The section A was exposed to audio media, section B to audio visual media and section C to audio and still pictures. Lastly, post test was administered. The achievement test developed by the investigator was used as a tool. The findings were: (i) Audio, audio-visual and audio and still picture as media can be developed for science teaching. (ii) Effective instruction in relation to students' achievement can be equally done through audio, audio-visual and audio and still picture. (iii) All the three media differentially affected the knowledge, understanding and application achievement. (iv) Student's interest increased when instructed through audio-visual media.

Lal (1996) had produced and validated video teaching material in Home Science for senior secondary students of Delhi. The sample comprised of 102 students from three schools. The data were collected by criterion referenced test, Retention of concept test & attitude scale developed by the investigator. Data were analyzed with the help of chi-square,

ANOVA, Sum of Rank and t-test. The findings were (i) The difference in mean post test scores was significant, students exposed to video teaching learning material (VTLM) and video aided instruction (VAI) achieved higher as compared to conventional teaching (CT) (ii) The low intelligence students achieved higher when exposed to VTLM. (iii) On retention scores, significant difference was observed in three different treatments. Students exposed to VTLM and VAI retained more concepts in home science as compared to students in CT (iv) The majority of the students had favorable attitude towards video teaching learning material.

Ilangovan (1997) studied the effectiveness of Audio-Video intervention in developing listening Comprehension in English at higher secondary stage at Bharathiyar University. The objectives of the study were: (i) To establish the relative effectiveness among the different instructional strategies viz. conventional teaching method (CTM), media-based Non-interactive group interaction (MNGI) and audio-visual presentation as a support system(s) in developing listening comprehension in English at higher stage. (ii) To find out whether there is any significant difference among the different instructional strategies, viz., conventional teaching method (CTM), media-based Non-interactive group interaction (MNGI) and audio-visual presentation as a support system(s) in terms of their effectiveness in modifying the micro skills which are required for local listening comprehension among the higher secondary students. (iii) To develop syllabus based audio-video materials in developing comprehension in English among the students at higher secondary stage. (iv) To develop audio-video materials for testing and assessing the performance of the higher secondary students in listening comprehension in English before and after experimentation. (v) To evaluate the developed audio-video materials from technical and pedagogical points of view by experts, educationalists and practicing teacher of English. (vi) To find out whether there is any significant difference among the instructional strategies in terms of their retention of micro skills required for local listening comprehension in English as revised by the learner performance in the retention test? (vii) To find out whether there is any significant difference among the instructional strategies in terms of their retention of micro skills required for global listening as revised by the learner performance in the retention test? (viii) To find out whether there is any significant difference with regard to student's academic achievement in English before and after experimenting owing to the intervention of audio-video presentation in developing listening comprehension skills of the higher secondary students. Hypotheses were: (i) there is a significant difference between the means of pre and post test scores of the

groups of different instructional strategies on the skill of listening comprehension in English at higher secondary stage. (ii) There is a significant difference between the means of pre and posttest scores of different instructional strategies on different micro skills of listening comprehension in English at higher secondary stage. (iii) There is a significant difference between the means of pre and post test scores of the groups of different instructional strategies on the skill of local listening comprehension and global listening comprehension in English at higher secondary stage. (iv) There is no significant difference among different instructional strategies in their effectiveness in modifying skill of listening comprehension in English at higher secondary stage. (v) There is a significant difference among different instructional strategies in their effectiveness in modifying skill of local and global listening comprehension in English among higher secondary students. (vi) There is a significant difference among different instructional strategies in their effectiveness in modifying the micro skill which is required for local listening comprehension and global listening comprehension in English among higher secondary students. (vii) There is a significant difference among different instructional strategies in their effectiveness in terms of retention of the skill of listening comprehension in English as revealed by the learner's performance in the retention test. The pretest-posttest non-equated groups design was used. The sample for the study consisted of 105 students studying in their classes of standard 11th in GHSS in Arocholur in Erode district of Tamil Nadu. Three identical groups each of 35, 11th standard students were formed on the basis of their scores in different micro skills in listening comprehension in English as measured by pre-test. One of the groups was identified as control group and the other two groups were treated as experimental groups. Conventional teaching method was adopted for the control group, while media based non-interactive instruction and AV presentation as support systems were introduced as experimental factors to the other two groups respectively. Tools of the study were: (a) syllabus based audio cassettes in listening and speech practice viz. vowels, diphthongs, consonants, initial consonant clusters, final consonant clusters, stress and stress patterns, falling intonation, rising intonation, falling rising intonation and stress shift developed by the investigator, (b) syllabus based as well as syllabus free audio-cassettes in the area of listening comprehension viz. news-items, short talks, conversation, interviews and story telling developed by the investigator, (c) audio-cassettes developed by the investigator covering all the micro skills of listening for administering the pre and post tests in the subjects of the experimental group, (d) three objective based paper pencil tests covering the selected micro skills of listening developed by the investigator. The data were analyzed with the help of ANOVA followed by

t-test. Findings of this study were: (i) the three instructional strategies are effective in modifying the skill of listening comprehension in English among the higher secondary students. (ii) The three instructional strategies are effective in developing all the micro skills as regards to listening comprehension among higher secondary students. (iii) Among these three instructional strategies AVPSS is the most effective instructional strategy while CTM is the least effective in modifying the skill of listening comprehension in English among the higher secondary students. (iv) All the three instructional strategies are equally effective in modifying the micro skills such as listening to contextual speech via Picture cues and local listening comprehension via Audio mode. (v) AVPSS is more effective and CTM and MNGI are equally effective in enhancing the retention of the skill of listening comprehension in English among higher secondary students.

Joshi (1997) compared the Video Instructional Material (VIM) with live presentation in terms of theoretical understanding of CAM, and reaction towards CAM separately by taking intelligence as covariate, studied the effectiveness of Video Instructional Material in terms of (a) theoretical understanding of the CAM and (b) reaction towards the CAM, to study the effectiveness of the VIM in real setting in terms of competency in teaching through CAM of students trained through VIM. The sample comprised 75 teacher trainees from IOE, DAVV, Indore during 1991-92 academic session. The present study was pretest posttest control group design. The data were collected through VIM reaction scale developed by the investigator. Data were analyzed using mean, SD, ANCOVA, t-test and ANOVA. The findings were (i) The VIM was found to be effective in terms of theoretical understanding of CAM, reaction towards CAM, reaction towards VIM and willingness for implementation of CAM (ii) The students of VIM had significantly more favorable reaction towards CAM as compared to live presentation group when intelligence was considered as covariate.

Marthandavarma (1997) Studied Effectiveness of Instructional Media in Modifying Cognitive and Affective Behavior in Prevention and Control of Acquired Immuno Deficiency Syndrome (AIDS). The objectives of the study were: (i) To find out whether the different instructional media viz. audio, video, slides, posters and lecture method are effective in modifying the cognitive and affective behavior among undergraduate students with regard to AIDS epidemic (ii) To find out whether there is any significant difference between lecture method and different instructional media viz. audio, video, slides, posters in modifying the

cognitive and affective behavior among undergraduate students with regard to AIDS epidemic. (iii) To establish the relative effectiveness among different instructional media viz. audio, video, slides, posters in modifying the cognitive behavior among undergraduate students with regard to AIDS epidemic. (iv) To find out whether there is any significant difference among different instructional media viz. audio, video, slides, posters in modifying the affective behavior among undergraduate students with regard to AIDS epidemic. (v) To find out whether there is any significant difference between lecture method and different instructional media viz. audio, video, slides, posters in enhancing retention of cognition and attitude with regard to AIDS epidemic as measured by the retention test. (vi) To find out whether the linguistic and cultural background of the instructional media materials on AIDS epidemic have any significant influence in modifying the cognitive and affective behavior among undergraduate students with regard to AIDS epidemic. The hypotheses were: (i) there is a significant difference between the means of pre and post test scores of the students of the groups of lecture method and different instructional media viz. audio, video, slides, posters in cognition of AIDS epidemic. (ii) There is a significant difference between the means of pre and post test scores of the students of the groups of lecture method and different instructional media viz. audio, video, slides, posters in their attitude towards AIDS epidemic. (iii) There is a significant difference among lecture method and different instructional media viz. audio, video, slides, posters are effective in modifying the cognitive behavior among undergraduate students with regard to AIDS epidemic. (iv) There is a significant difference among lecture method and different instructional media viz. audio, video, slides, posters in their effectiveness in modifying the affective behavior among undergraduate students with regard to AIDS epidemic. (v) There is a significant difference among lecture method and different instructional media viz. audio, video, slides, posters in their effectiveness in terms of retention of cognition with regard to AIDS epidemic. (vi) The effectiveness of an instructional medium is influenced by the linguistic and cultural background of the media material in modifying the cognitive behavior among undergraduate students in AIDS epidemic. (vii) The effectiveness of an instructional medium is influenced by the linguistic and cultural background of the media material in enhancing retention of attitude towards AIDS epidemic among undergraduate students as measured by the retention test. Pretest-posttest non – equivalent groups design was adopted for the study. The seven groups of U.G students (n= 245) studying in different colleges in the Coimbatore city were the sample. The tool of study were: Interview schedule developed by investigator; video, audio materials in AIDS awareness developed by different national and international agencies in the area of

prevention and control of AIDS epidemic; Slides and posters dealing with AIDS epidemic developed by Tamil Nadu state cell; Criterion referenced test in AIDS awareness developed by investigator; An attitude scale towards AIDS awareness developed by investigator; and an evaluation Performa developed by investigator. The data were analyzed with the help of t-test. The findings of the study were: (i) the instructional media are effective in achieving the instructional objectives in AIDS awareness program. (ii) The poster as an instructional medium is effective in changing the attitude towards AIDS epidemic (iii) the different instructional media viz. audio, video, posters, and slides were not effective in changing the attitude towards AIDS epidemic (iv) the different instructional media viz. audio, video, posters, slides differ among themselves in their effectiveness in modifying the cognitive behavior prevention and control of AIDS epidemic. (v) Conventional lecture method is effective than video, audio, and slides (vi) the different instructional media viz. audio, video, posters, and slides differ among themselves in their effectiveness in enhancing retention of attitude towards AIDS epidemic.

Tiwari (1997) studied Nutrition Education of Anemia through video and Folk songs among adolescent girls of Thar Desert. The objectives of study were, to compare the relative effectiveness of above mentioned strategies to control the anemia among target population group. The sample comprised of 120 girls between age group 13-18 years selected by cluster sampling technique. The single group pre test post design used in study. The findings were when information about anemia through Video or folk song was imparted the participants were benefited most in terms of gain in knowledge of anemia.

Reddy & Ramar (2001) measured the relative effectiveness of video instruction in teaching science and social science to slow learners. The sample comprised of 50 slow learners of Class VIII from S.S.H.N. Higher Secondary School, Muhavur. The tools used for the study were Raven's Standard Progressive Matrices and Achievement Test developed and validated by the investigator. The data were analyzed with the help of mean, SD and t-test. The finding of the study was that the video instruction was more effective than the traditional lecture method in teaching science and social science.

Shinde (2002) Studied Effectiveness of Multimedia CAI Package with reference to Levels of Interactivity and Learning Style in SNTD Women's University. The objectives of

study were: (i) to prepare multi-media CAI packages with two levels of interactivity viz. high and low. (ii) To test effectiveness of the prepared CAI packages. (iii) To find out the extent to which scholastic achievement of the learner is affected by the levels of interactivity. (iv) To find out the extent to which scholastic achievement of the learners is affected by the learning style in two different environments (learning through CAI with high level of interactivity (HCAI) and learning through CAI with low level of interactivity (LCAI)). The hypotheses of study were: (i) there will be no significant difference between pretest and post-test scores of the learners learning through HCAI. (ii) There will be no significant difference between pretest and post-test scores of the learners learning through LCAI. (iii) There will be no significant difference between post-test scores of the learners learning through HCAI and LCAI. The study was experimental in nature. The sample comprised of 87 preservice teacher-trainees from colleges of education learning through English medium or graduated through English medium. The sample was selected by Stratified Random Sampling Method. The tools used for the study were: Koeb's Learning Style Inventory, Nafde's Non-Verbal Test of Intelligence (NVTI), Pretest and Post-test on "Communication" (developed by the researcher), Opinionnaires about CAI packages with high and low levels of Interactivity (developed by the researcher), Rating scale for the experts to evaluate CAI packages (developed by the researcher). The data was analyzed with the help of analysis of co-variance and t-test. The findings of study were: (i) HCAI was effective in terms of achievement. (ii) LCAI can also bring significant increase in the achievement scores. (iii) The two sample groups are not significantly different and are selected from the same population. (iv) The interactivity plays major role in enhancing the achievement of the learners learning through CAI. (v) Most of the learners appreciated multimedia inputs in the CAI packages. (vi) CAI mode is considered to be an effective and efficient mode of learning. The preference for this mode is higher in case of HCAI than LCAI.

Vekaria (2002) studied the effect of video instruction programs in teaching science to standard VIII on achievement. The researcher developed video instructional program and constructed a test, an opinionnaire for the students and an opinionnaire for the teachers. The findings were: (i) The video instructional program developed by the researcher was found to be effective in the urban as well as rural areas of Saurashtra, Central Gujarat and South Gujarat. (ii) The video instructional program was found equally effective on rural and urban areas of entire Gujarat. (iii) The effectiveness of video instructional program was found

directly proportional to the level of achievement in all the three areas. (iv) The students and teachers were found to have positive Reaction towards the video instruction program.

Shukla (2003) compared the effect of teaching through video programs with and without discussion and traditional method on the achievement of student teachers. The sample comprised 163 students in first year and 205 in the second year of the study. These student teachers were divided in three groups keeping in mind their IQS, faculty and sex, out of which two groups were treated as experimental groups and one as control group in both the years of study. Desai verbal non verbal intelligence test was used for dividing the student teachers in different groups. The investigator constructed an attitude scale to know the attitude of student teachers regarding the used of video programs in teacher education program. A 3X2X2 Factorial Design analysis of variance (ANOVA) was used for the analysis of achievement scores. The findings were: (i) the student teachers who were taught through the video programs with discussion were better in achievement than the students who were taught through video programs without discussion. (ii) The student teachers who were taught through the video programs with discussion were better than the student's teachers who were taught through the traditional methods as far as their achievement was concerned. (iii) The student's teachers who were taught through the video programs without discussion were better than the student teachers who were taught through the traditional method as far as their achievement was concerned. (iv) It was found that the student teachers belonged to the science faculty were cleverer than those belongs to Arts faculty as for as their achievement was concerned (v) Sex of the students teachers did not affect their achievement significantly (vi) Interaction between the methods of teaching and faculty had no significant effect on the achievement of the student teachers (vii) Interaction between the method of teaching and sex had no significant effect on the achievement of the students teachers (viii) Interaction between the faculty and sex did not effect the achievement of the student teachers significantly (ix) Interaction among the methods of teaching, faculty and sex had no significant effect on the achievement of the student teacher (x) Attitude of all the student teachers towards the education through video programmes after the treatment was more positive than that was before the treatment.

Shehnaz (2006) Effectiveness of teaching methods based on Puppet-show and its Videography for the Teaching of Language and History. The following were the objectives of the study: (i) to prepare puppet-shows for the selected units of Hindi and History of the syllabus of standard nine. (ii) To prepare the video lessons based on the Videography of puppet-shows of the selected units of standard nine. (iii) To study the Effectiveness of the video lesson based on the Videography of puppet-show with reference to the traditional method of Teaching for the Achievement of students learning. (iv) To study the effectiveness of the Teaching Method based on the puppet-show with reference to the video lesson based on the Videography of puppet-show for the Achievement of students learning. Through purposive sampling method girl students studying in a Gujarati medium school of Jetpur city and Rajkot district were selected in the sample. The sample consisted of 121 female students for the experiment. For both experimental groups the samples were 39 and 40 while for the Control Group it was 42. Three equal groups only Posttest Experimental Design was selected for the purpose of the study. It was Counter Balanced Rotated Group Design and the groups were equal on the basis of students Achievement in 8th standard final examination. Teaching Methods with three levels, namely, Methods based on puppet-show, Videography of puppet-show and Herbert's model of Teaching was independent variable. The Achievement after learning the content through selected methods was dependent variable. The teacher, content, time duration of Teaching, school environment and especially the vividness of the experiment were controlled. Teacher made tests of selected five units of Hindi and five of History as post-test prepared by the investigator using Norm Reference Testing procedure was the tool. The data were analysed with the help of ANOVA followed by t-test after testing the equalization of three groups. The following were the findings: (i) Video lessons based on Videography of puppet-show were more effective than the Methods based on puppet-show and traditional model. The Method based on puppet show was more effective than the traditional method for the Achievement of girl students' learning. (ii) The retention for the three units out of five was found for the subjects Hindi and History and the result was same for selected all the three methods of Teaching.

Shinde (2007) conducted an experimental study on Effectiveness of Video Instructional Material on Research Methodology and Statistics in terms of Achievement and Reaction towards it of Postgraduate Students. The sample comprised 72 students studying at M.Ed level, out of 72 students, 36 students were from School of Education, DAVV Indore, and 25 students were from Department of Education, Allahabad University and 11 students

from Department of Education, M.G.Kashi Vidyapeeth Varanasi. Out of 72 students 35 were males and 37 females. The objectives of study were: (i) to study the Effectiveness of the developed Video Instructional Material on Research Methodology and Statistics in terms of Achievement in Research Methodology and Reaction towards Video Instructional Material on Research Methodology & Statistics.(ii) to compare the mean scores of Achievement in Research Methodology on different criterion Tests and on the Whole separately of Video Instructional Material on Research Methodology & Statistics (VIM) Group and Traditional Method Group.(iii) To compare the adjusted mean scores of Achievement in Research Methodology on different Criterion Tests and on the whole separately of Video Instructional Material on Research Methodology & Statistics (VIM) Group and Traditional Method Group by considering intelligence as covariate.(iv) To study the effect of Treatment, Gender and their interaction on Achievement in Research Methodology on different criterion tests and the whole separately by taking Intelligence as covariate.(v) To study the effect of Treatment, Personality and their interaction on Achievement in Research Methodology on different criterion tests and on the whole separately by taking Intelligence as covariate. (vi) To study the effect of Treatment, Intelligence and their interaction on Achievement in Research Methodology on different criterion tests and on the whole separately. The study was designed on the basis of posttest Only Control Group Design. The data were collected by Ravens Standard Progressive Matrices, Maudsley Personality Inventory adopted by S.S. Jalota and S.D. Kapoor and Achievement by Criterion test developed by the investigator. The findings of this research were (i) Video Instructional Material on Research Methodology & Statistics was found to be effective in terms of Achievement in Research Methodology (ii) Video Instructional Material on Research Methodology & Statistics was found to be effective in terms of Reaction towards instructional material on Research Methodology & Statistics (iii) Video Instructional Material on Research Methodology & Statistics was found to be superior to Traditional Method for teaching Research Methodology when the groups were not matched with respect to intelligence as well as when the groups were matched with intelligence (iv) Achievement in Research Methodology of males and females was found to be equally well when groups were matched on intelligence (v) Both males and females benefit equally well from Video Instructional Material on Research Methodology & Statistics in comparison to Traditional Method when groups were matched with respect to intelligence (vi) Both Extrovert and Introvert can benefit equally well from Video Instructional Material on Research Methodology & Statistics in comparison to Traditional method when groups were matched with respect to intelligence (vii) Higher the intelligence better was the

Achievement in Research Methodology (viii) Students of Below Average Intelligence as well as Above Average Intelligence can benefit equally from Video Instructional Material on Research Methodology & Statistics in comparison to Traditional Method.

Gupta (2008) conducted an experimental study on Effectiveness of Video Instructional Material for the development of Social Values amongst undergraduate students. The sample comprise of 118 students was selected randomly from Educational Multimedia Research Centre (EMRC) Indore. The Non equivalent Control Group Quasi Experimental design was used in the study. The data were collected with the help of Value Clarification Test developed by investigator, Value Judgement test developed by investigator and Reaction scale developed by the investigator. The data were analyzed by using Mean, SD, Paired Sample t-test, Independent sample t test and factorial Design ANCOVA. The objectives of study are (i) to produce Video Instructional Material for the development of social values i.e. Kindness, Cooperation, Communal Harmony, Team Spirit and Discipline among undergraduate students. (ii) to develop and standardized value clarification Test and Value Judgement Test for the measurement of value clarification and value judgement of undergraduate students for social values i.e. Kindness, Cooperation, Communal Harmony, Team Spirit and Discipline (iii) To develop a Reaction Scale to measure the reaction of undergraduate students towards developed Video Instructional Material (iv) To study the effectiveness of Video Instructional Material on Value Clarification, Value Judgement and Reaction towards Video Instructional Material (v) study the effectiveness of Video Instructional Material, Gender and their interaction on value clarification with respect to social values i.e. Kindness, Cooperation, Communal Harmony, Team Spirit and Discipline separately (vi) To study the effectiveness of Video Instructional Material, Gender and their interaction on Value Judgement with respect to social values i.e. Kindness, Cooperation, Communal Harmony, Team Spirit and Discipline separately. The findings were (i) There was no significant change in terms Value Clarification of the Kindness of the Experimental Group treated with Video Instructional Material (ii) There was no significant change in terms of Value Clarification of the Value Discipline of the Experimental Group treated with Video Instructional Material (iii) There was no significant change in terms of Value Clarification of the value Team Spirit of the Experimental Group treated with Video Instructional Material (iv) There was no significant change in terms of Value Clarification of the value Cooperation Experimental Group treated with Video Instructional Material (v) There was no significant

change in terms of Value Clarification of the value Communal Harmony of the Experimental Group treated with Video Instructional Material (vi) There was no significant change in terms of overall value clarification of the Experimental Group treated with Video Instructional Material (vii) There was no significant effect of treatment, Gender and their interaction in terms of value clarification of the value Kindness by taking pre test scores as covariate (viii) There was no significant effect of treatment, Gender and their interaction in terms of value clarification of the value Team Spirit by taking pre test scores as covariate (ix) There was no significant effect of treatment, Gender and their interaction in terms of value clarification of the value Discipline by taking pre test scores as covariate (x) There was no significant effect of treatment, Gender and their interaction in terms of value clarification of the value Cooperation by taking pre test scores as covariate (xi) There was no significant effect of treatment, Gender and their interaction in terms of value clarification of the value Communal Harmony by taking pre test scores as covariate (xii) There was no significant effect of treatment, Gender and their interaction in terms of overall value clarification by taking pre test scores as covariate (xiii) There was no significant change in terms of value judgement of the value Kindness of the Experimental Group treated with Video Instructional Material (xiv)) There was no significant change in terms of value judgement of the value Discipline (xv)) There was no significant change in terms of value judgement of the value Team Spirit of the Experimental Group treated with Video Instructional Material (xvi) There was no significant change in terms of value judgement of the value Cooperation of the Experimental Group treated with Video Instructional Material (xvii)) There was no significant change in terms of value judgement of the value Communal Harmony of the Experimental Group treated with Video Instructional Material (xviii)) There was no significant change in overall value judgement of the Experimental Group treated with Video Instructional Material (xix) There was no significant effect of treatment, Gender and their interaction in terms of value judgement of the value kindness by taking pre test score as covariate (20) There was no significant effect of treatment, Gender and their interaction in terms of value judgement of the value Team Spirit by taking pre test score as covariate (21) There was no significant effect of treatment, Gender and their interaction in terms of value judgement of the value Discipline by taking pre test score as covariate (22) There was no significant effect of treatment, Gender and their interaction in terms of value judgement of the value Cooperation by taking pre test score as covariate (23) There was no significant effect of treatment, Gender and their interaction in terms of value judgement of the value Communal Harmony by taking pre test score as covariate (24) There was no significant effect of treatment, Gender and their

interaction on overall value judgement by taking pre test scores as covariate (25) Respondents treated with Video Instructional Material showed significantly favourable Reaction towards Video Instructional Material.

2.1.2.2 EFFECTIVENESS OF EDUCATIONAL TELEVISION

In the light of above classification under caption 2.1.2, the effectiveness of Educational Television studied by various researchers, namely, Roy (1974), Paiganokar (1978), Phutela (1980), Goel (1985), Joshi (1987), Educational Technology Cell Meghalaya (1988), Mohanty (1988), Arularam (1980), Behra (1980), Chaudhary (1990), Pillay and Anardan (1990), Abrol (1991), Anuradha (1991), Mishra (1991), Phutela (1991), Kapadia (1992), Miryur (1995), Bose (1999), Goel, Das and Joshi (2000), Kewalramani (2000), Sarangi (2000), Reddy (2001), Reddy and Ramar (2001), Singh (2001) and Das (2005). The details of these researches are given below.

Roy (1974) studied the cognitive effects of the ETV programs telecasted by the Delhi TV center. The objectives of the study were: (i) to find out the present situation through observations of the teachers and students on an observation schedule about the cognitive effects of ETV programs through four bases of cognition. (ii) To study any probable effect of two variables (TV teaching and discussion). The hypotheses were: (i) there would be a significant difference between TV teaching followed by discussion and TV teaching followed by no discussion (A1B1-A2B2). (ii) There would be a significant difference between TV teaching followed by discussion and non-TV teaching followed by discussion (A1B1-A2B1). (iii) There would be a significant difference between TV teaching followed by discussion and non-TV teaching followed by discussion (A1B1-A2B2). (iv) There would be a significant difference between TV teaching followed by no discussion and non-TV teaching followed by no discussion (A1B2-A2B1). (v) There would be a significant difference between TV teaching followed by no discussion and non-TV teaching followed by no discussion (A1B2-A2B2). (vi) There would be a significant difference between non-TV teaching followed by discussion and non-TV teaching followed by no discussion (A2B1-A2B2). The sample comprised of students of class X of science stream of two classes, each of which was divided into two matched groups as class I-A1B1, A1B2 and class II-A2B1, A2B2. Both the classes were taken from the same school where ETV was being used for classroom purposes. The

instruments prepared and administered were an opinionnaire having thirty-eight items meant for both the TV teachers and the students; and a test based upon the lesson which the TV teacher gave. The findings of the study were: (i) the opinionnaire revealed that nearly half of the students were not having the overall and cognitive affects out of the TV lessons. (ii) the most affected were the assimilation and utilization bases out of the four bases.

Paiganokar (1978) conducted a study on the use of mass media for second language teaching in India with special reference to radio and television. The objectives of the study were: (i) to take a survey of the availability of English and Hindi teaching programs through the mass media in India. (ii) To see how far the principles of linguistics, the principles of psychology of learning and considerations about the socio-cultural conditions of the learners were used in preparing English and Hindi lessons for the mass media. (iii) To see if there was an attempt to use the potentials of each mass media while preparing English and Hindi lessons and to what extent they were utilized. (iv) To find out facts about the conditions in which planning, preparation, and evaluation of English and Hindi lessons for the mass media took place. (v) To see how English and Hindi programs over the mass media were being utilized by teachers and pupils. The programs studied were Hindi teaching on the Pune radio through Marathi, English teaching on radio for schools in Maharashtra, English teaching on Bombay-Pune and Delhi televisions under the School Television Program and English teaching through the Marathi newspaper 'Kesari' from Pune. The design of the study was based on survey methodology, using observation, interviewing and questionnaire as tools for data collection. Content analysis of official documents was also carried out. All those connected with policy formation, program production, program execution and program participation were studied using suitable methods. The findings of the study were: (i) Script-writers and subject experts of radio and TV lessons for schools had the knowledge about the principles of linguistics and pedagogy but did not have the training needed to use the media potentials. This was reflected in the actual lessons produced. English lessons through the newspaper and Hindi on radio for general public did not reflect such knowledge and training of their producers. (ii) Teachers in the schools of Pune, Bombay and Delhi lacked awareness of the principles of linguistics and their application to second language learning. No training was available to them from any source. A few Bombay and Delhi teachers were exposed to some orientation because of user-teacher courses and on-the-spot evaluation meetings. This, however, covered very few teachers. (iii) Teachers were generally aware of the second

language teaching programs over the mass media with the exception of linguaphone records. (iv) Rural teachers were more aware of the radio as an available medium of teaching second languages than their urban counterparts, but the situation was reversed in the case of the rest of the mass media. (v) It was hypothesized that the use of English and Hindi lessons put across by the radio and the TV would progressively decrease as one moved from the urban upper class schools to rural schools. This was not supported in the case of the radio programs and there were very few TV sets in the rural schools, a meaningful comparison could not be made.

Phutela (1980) evaluated school television programs in Delhi. The objectives of the investigation were: (i) to determine the extent of utilization of school television (STV) programs by the schools. (ii) To study the factors responsible for under utilization of the programs. (iii) To study the process and liaison between the various agencies involved in the production and utilization of the programs. (iv) To study teachers' attitudes towards the school telecasts. (v) To find out the preferences of teachers regarding the subjects for teaching through television. (vi) To study the level of comprehension of the STV programs on the part of the students of different classes. The sample was drawn from the higher secondary, high schools and middle schools of Delhi. Every third school was included in the sample study. The schools were visited by researchers without prior intimation at the time of the telecast. Comprehension tests were administered to the students both before the telecast (pretest) and after the telecast (posttest). A questionnaire was constructed based on content factors, motivation factors, and presentation factors and viewing conditions. A four-point attitude scale for assessing the attitudes of the teachers towards STV programs was also included. The data obtained were analyzed using percentages and t-test. The findings of the investigation were: (i) many teachers did not find school television (STV) programs useful as they were not different from classroom teaching or were not presented in such a manner as to sustain student's motivation. The quality of the program was not high. The number of programs per class was not adequate. (ii) About 38 percent schools in the sample possessing TV sets utilized STV programs. The reasons for not viewing were: TV sets being out of order, functions in the schools, examinations, etc. (iii) Most of the teachers from these schools accepted TV as a welcome help and agreed to the positive statements, like, teachers too learn about better methods of teaching. (iv) The results of four out of five comprehension

tests showed real difference in the learning of the subject matter, indicating that these lessons were well understood.

Goel (1985) studied organization and utilization of Educational Television (ETV) programs. The organization of ETV was studied in Delhi, Maharashtra, Srinagar, Jaipur, Raipur and Muzaffarpur. The utilization of ETV was studied in Maharashtra State. The data were collected from the producers of ETV programs and academic staff of the Educational Technology (ET) Cells, Directorate of Education, through questionnaires and interviews. Information was also collected from official documents. The findings of the study were: (i) In 1983-84 Door Darshan Kendra Delhi used to telecast 16 programs per week for secondary students, two for elementary pupils and one for teachers. In Maharashtra, there were three school TV (STV) programs, one each for students of class V, class VI and class VII. In Srinagar there were two programs per week for the age group 6 to 13 years. Delhi was producing six programs per week for class V to IX for the school of Jaipur, Raipur and Muzaffarpur. (ii) In Delhi, TV handbooks were distributed to all TV viewing schools. In Maharashtra TV handbook and other support material were distributed to all schools but they did not reach the schools in time. In Srinagar, Jaipur, Raipur and Muzaffarpur support material was not supplied to teach. (iii) In Delhi and Maharashtra script writers and teachers were oriented whereas in other centres there was no similar program. (iv) In Delhi and Maharashtra STV programs and / or support material were produced by the ET Cell of Education Directorate. There was no program of preparing these in Jaipur, Raipur and Muzaffarpur. In Srinagar the Door Darshan Kendra produced the software.

Joshi (1987) studied the effectiveness of School Television (STV) programs in science at the secondary school level. The objectives of the investigation were: (i) To study the STV programs in science in terms of instructional objectives, number of programs, content coverage, its suitability and resources required. (ii) To study the impact of STV programs on the scholastic achievement and scientific attitude of students. (iii) To study the effect of intervention activities on the achievement and attitudes of students. The sample included all the personnel from the production of STV programs to the utilization covering 50 school Principals, 180 school teachers and 200 students. The tools used were: questionnaire, check-list, and unstructured interview schedule, Raven's Progressive Matrices and Vardhini

and Ravinderanath's Scientific Attitude Scale. The collected data were treated by content analysis, percentages and ANCOVA. The findings were: (i) School TV programs were running for long and have not changed over the years. (ii) The programs were of poor quality. (iii) No significant difference was found in scholastic achievement and scientific attitudes of students exposed to STV programs.

Educational Technology Cell, Meghalaya (1988) conducted a survey of the ETV programs in the state. The organization interviewed 289 headmasters, 538 teachers, 774 parents and 1240 students. The survey revealed that students wanted longer duration TV programs and with the frequency of one program a day. Power supply and problems relating to maintenance and repair were blocks to popularizing ETV programs.

Mohanty (1988) critically analyzed the Educational Television (ETV) programs for the primary school children in the state of Orissa. The objectives of the study were: (i) to study the impact of ETV programs on the scholastic achievement of primary school children in general science, social studies and language development. (ii) To study the operational credibility of the medium of TV, particularly that of ETV programs. (iii) To collect and analyze the opinion of the school inspecting officers towards ETV programs. A sample of 30 control schools from all the three cluster districts (Sambalpur, Dhenkanal and Bolangir) was drawn randomly (10 schools from each district). From the selected schools a sample of 300 subjects was further drawn randomly for treatment conditions. The total number of teachers interviewed from TV and non-TV schools was 300 (150 from each set-up). The total number of inspecting officers interviewed for the purpose was 75. The tools used were three Achievement Tests that were developed to assess the impact of ETV programs. Questionnaires, check-list and an interview schedule were developed to get the feedback from teachers, headmasters and inspecting officers of both TV and non-TV schools. Using mean, SD, CR and ANOVA, treated the collected data. The findings were: (i) Children exposed to ETV programs had superior scholastic attainment as compared to children of the non-exposed group. (ii) The greatest achievement was in respect of 'language'.

Arularam (1990) evaluated UGC's countrywide educational television programs. The objectives of the study were: (i) to verify the extent to which the UGC country-wide

ETV enriched knowledge, and promoted development. (ii) Utilized the potentiality of the TV medium. (iii) To cater to the needs of target population. The sample comprised rural undergraduate students who were drawn using cluster sampling method. An observation schedule was used as a tool to collect the relevant data. The findings were: (i) the needs of the rural students still remain unfulfilled. (ii) The programs in humanities were poor in offering knowledge enrichment.

Behera (1990) investigated the impact of ETV programs on the competency of teachers of elementary schools. The objectives of the study were: (i) to study the impact of ETV on the competency of teachers of elementary schools in terms of knowledge, understanding and application in content areas, (ii) to study the classroom interaction between teachers and students, (iii) to study the attitude of the teachers towards ETV programs, and (iv) to study the problems of the teachers with respect to the utilization of the ETV programs. The sample of the study constituted twenty-five TV schools as experimental schools with 50 teachers and 25 non-TV schools as control schools with 50 teachers were taken as sample schools. In addition, 25 of the Inspecting Officers concerned were also selected to provide data about the problems of TV utilization. Tools used were Competency Based Achievement Test (CBAT), Flanders' Interaction Analysis Categories System (FIACS), Opinionnaire, and Feedback Schedules. The collected data were treated by using ANOVA, and percentage. The findings were: (i) Teachers exposed to ETV programs achieved significantly more on their knowledge, understanding and in actual classroom interaction. (ii) ETV teachers significantly differed from non-ETV teachers on teacher response ratio, teaching question ratio, and pupil initiation ratio. (iii) Teachers also pointed out poor failures, mechanical disorders and unsuitable time slot as some of the vulnerable problems.

Choudhary (1990) conducted a study on teachers' attitude towards school TV and its relationship to mass media behavior and job satisfaction. The objectives of the study were: (i) to study the attitude of teachers toward school television as an educational subsystem. (ii) To study the relationship between the teachers' attitude toward school television and his mass-media behaviour. (iii) To study the relationship between the teachers' attitude and his job satisfaction. (iv) To study the influence of the personal and academic characteristics of

teachers in relation to their attitude towards school television. The sample comprised primary school teachers of 104 villages having television, falling under the Jaipur Kendra. The tools consisted of a Teachers' Attitude towards School Television Scale and Interview Schedule. Using t-test, ANOVA and chi-square treated the collected data. The findings were: (i) Job satisfaction was associated with the authority responsible. (ii) For work allocation, the study revealed that the majority of teachers did not operate STV regularly and the majority of TV sets were out of order. (iii) Teachers perceived STV as a good tool for teaching and were fairly satisfied with their job. (iv) Teacher's teaching classes IV and V showed a more positive attitude towards STV.

Pillay and Anandan (1990) made an analysis of the educational video programs produced in India at the higher educational level. The objectives of the study were: (i) to find out the distribution of educational video produced by different centers and in different years. (ii) To analyze the content of the educational videos produced in different subjects. (iii) To make suitable suggestions for improvement. The educational video telecasts in India from 1983-88 were content analyzed. Using the census approach, all the video telecasts were analyzed using counting of frequencies and percentages. The findings were: (i) Very few video programs were produced in subjects, like, law, anthropology and veterinary sciences. (ii) In general, educational subjects, like, economics, sociology, management, and education received greater attention but not geography or political science. (iii) There was no coordination between various production agencies.

Abrol (1991) conducted a study on TV viewing among children of Delhi school. The objectives of the investigation were: (i) to study the TV-viewing behaviours of children in terms of duration of viewing and program preference. (ii) To delineate the factors influencing TV-viewing among children. (iii) To determine the relative importance of the factors influencing TV-viewing among children. (iv) To study the impact of TV on the daily life of children. (v) To study the perception of parents regarding the TV-viewing of their children. The study was confined to 754 children studying in primary and secondary level schools of Delhi. A two-stage sampling procedure was followed. A total of 44 schools constituted the sample. In the second stage, 254 children covering 135 boys and 119 girls from the primary level, and 500 children covering 250 boys and 250 girls from the secondary level were

selected through sample comprised of 754 subjects. Two separate interview schedules were constructed for interviewing the children and the mothers. For measuring the duration of viewing the program, recall list method was used. Collected data were treated with mean, SD and ANOVA. The finding revealed that the majority of the mothers were restrictive to their children's TV viewing, and significant difference was found in the amount of TV viewing by male and female children. Viewing was independent of IQ of viewers and it was heavy on Saturdays and Sundays.

Anuradha (1991) studied children's television viewing behavior and its effect on personal and educational development the objectives of the investigation were: (i) to develop tools to measure television-viewing behaviour (TVB) and attitude towards television-viewing (ATTV). (ii) To compare parents' and children's viewpoints with regard to TV-viewing. (iii) To explore the potential influence of TV-viewing on the educational development of children. The sample of the study comprised of 180 children, who had TV in their homes (96 boys and 84 girls), selected by a systematic random sampling method from two English medium schools of Tirupati urban area. The children belonged to the 5-10 years age group. Schedules for parents and children and Intellectual Achievement Responsibility Scale (IAR) were used to collect data. The TV-viewing index (TVI) was calculated for the sample. Mean and percentage and chi-square were used of analyze the data. The finding was that children liked watching advertisement and programs on sports.

Mishra (1991) studied the role of television in diffusion of home-making practices among urban housewives. The objectives of the study were: (i) to determine the extent of exposure of urban housewives to different mass media for obtaining information on home-management practices. (ii) To explore the relationship between the socio-economic profile of television viewers and their information seeking behaviour. (iii) To analyze the reaction of television audience programs on house-management practices in terms of duration, time, presentation, use of visual aids and other relevant factors. (iv) To find out about the adoption of home-management practices by the television audience as a result of watching television. (v) To suggest suitable modifications in women's programs on television to make them need based and meaningful. The sample comprised of 190 housewives and 18 program designers. The study was conducted in the state capital of Orissa, Bhubneswar covering different wards

and units of the city. The selection of the sample was based on three criteria, namely, education up to matriculation, possession of TV, adoption of any one of the HMPs. The major areas of HMPs consisted of eight items, namely, food and nutrition, child care, home management, budgeting, kitchen, and textile and clothing. The tool used to collect data was mass media sources of information. Using Z-value, percentage and content analysis treated the collected data. It was revealed that the TV programs made little contribution to housewives in their efforts to adopt home making practices.

Phutela (1991) studied the effect of comic and comic TV serials on children. The main objectives of the study were: (i) to survey various types of available comic books and comic television serials. (ii) To find out the extent of reading/viewing on the part of children. (iii) To study their likes and dislikes as regards comic books / serials. (iv) To know the perceptions of children, teachers and parents as regard their useful effect on their growth and development. Data were collected from a cross-section of 198 children taking 25 children each from classes III and VI from the six schools in Delhi representing various strata; 19 teachers and 17 parents. Tools comprised a questionnaire, checklist and rating scales. Cumulative frequencies, percentages and median were used to treat the data. The findings were: (i) the younger children liked stories related to horror, animals and silly dolls. (ii) Children preferred detective, comics / serials followed by mythological and folk tales. (iii) Most teachers felt that comics help in language and aesthetic development. (iv) It is interesting to note that none of the teachers or parents supported the view that comics develop criminal tendencies.

Kapadia (1992) studied the impact of television on students' learning. The objectives of the study were: (i) to find out the impact of television on students' learning. (ii) To find out the comparative effectiveness of the tele-films and the tape-chart programs. (iii) To get the opinion of students and teachers regarding the two media used. For survey of the opinions, the stratified random sampling method was used. In all, 24 Gujarati-medium secondary schools, and 84,000 students belonging to classes VIII to X of Surat district were selected as the sample. For the experiment, 180 students of class IX from two schools of Surat district were selected purposively. Four matched groups, two from each school, each group having 45 students were formed. Tools used were Bhatt and Desai Intelligence Test, Desai's SES

scale, Opinionnaires, criterion test and interview schedule. Using t-test and chi-square treated the collected data. The findings were: (i) The TV group gained significantly more than the control group. (ii) The retention scores of the experimental group were better. (iii) 70% of the students opined that TV programs helped them in self-learning.

Miryur (1995) studied utilization of Countrywide Classroom Programs. The objectives of study were: (i) To study the production of Countrywide Classroom (CWCR) programs with regard to planning, selection of topic, consultation with experts, consultation with others involved, script writing, consultation with the producer, actual production, facilities for production, and evaluation. (ii) To study the utilization of CWCR program in terms of the opinions of the principals, teachers, students with regard to the timings, language, suitability of the content, level of the program, maintenance of T.V. sets, and facilities of the programs i.e. enrichment as visualized by UGC has been achieved. The study was descriptive in nature. All the members of production team at the EMRC, Ahmedabad and AVRC, Madras in particular and staff of other centers. All the principals, custodian teachers and 5-5 students of colleges in Gujarat visited by the investigator, experts from the field of mass media and education were the sample of the study. A self made questionnaire, and interview schedule were the tools used for data collection. The findings of study were: (i) Producers need to make sustained efforts to improve the quality of the CWCR programs in terms of the visuals, the audio, the content, and try to utilize the potential of the medium to its optimum. (ii) Producers, production assistants, subject experts, scriptwriters and presenters were not well trained for performing better tasks efficiently. The subject experts were not oriented for the CWCR programs and this affected the quality of programs. In the absence of training for scriptwriting and presentation, the scriptwriters and presenters faced lot of difficulties and the producers too had to cope with several problems in this regard. (iii) Academicians need active involvement in the programs. (iv) The rapport among the members of the production team was not always very harmonious. (v) A general conclusion that arrived at regarding the low utilization of the programs is the inconvenient timings, language of the telecast, and lack of teachers' initiative in using the media accessibility of the TV for teachers and students in colleges. (vi) In most of the colleges, principals and teachers have not impressed upon the students the benefits they reap out of viewing these programs by the way of enhancing their awareness in various disciplines.

Bose (1999) Conducted study on the UGC Programs and Video Materials Available for ELT in India with a view to Preparing a Design for Such Material. The objectives of study were: (i) to review the UGC programs in ELT in terms of objectives, content and formats. (ii) To review the ELT video materials produced in India in terms of objectives, content and formats. (iii) To design a set of communicative tasks of formats for TV and video software. The study was survey types which have been completed in two phases, namely, (a) the review of the existing software, and (b) the design and tryout of communicative task. The sample for phase one comprised of randomly selected 50 eminent ELT experts and material producers from H.M.P.I.E.T. & R Vallabh Vidyanagar. The Sample for Phase II comprised of 34 ELT Teacher-trainees of Institute of Language Teaching, Jamnagar. Tools used for data collection were open ended questionnaire, observation schedule, and a self evaluation opinionnaire and achievement test. The data were analyzed with the help of percentages. The findings of study were: (i) 65.52% of the experts feel the timing of telecast is not convenient. (ii) The experts found these programs to be direct, verbal, bookish and hardly entertaining. (iii) Often too much of discussion and less of visuals. (iv) Some sessions are little vague and one is not sure which level they are meant for. (v) The objectives are not realistic because there is no proper selection and grouping of information. (vi) The learner's involvement is very limited because there is no direct interaction between the teacher and the taught. (vii) Very few programs are learner centered. (viii) These programs are presenter oriented. (ix) These programs are artificial and formal. (x) The pattern of presentation is confined either to narration or to lecturing. (xi) 86.96% feel that these programs are not effective to a larger extent. (xii) Some programs are good as they deal with complex and ambiguous situations. (xiii) These programs provide a lot of information along with interesting visuals to the learners. (xiv) 20 to 25% of the UGC programs match very well with the international programs. (xv) Most of these programs are very lengthy and lack proper visual and audio quality.

Goel, Das and Joshi (2000) conducted a study related to ETV. A Standard from the University Experimental School for a particular program was selected depending upon their suitability to the content telecast on that specific day. All the students of that class were selected for the intervention of that day. 10 students of that class were selected randomly for unstructured interviews and discussion. The tools used for the study were observation schedules, unstructured interviews and discussion. Data obtained through watching the videocassettes, observations and discussions with students were analyzed through content

analysis technique. The findings were: (i) the students enjoyed watching the ETV programs. (ii) Learning took place by viewing the ETV programs. (iii) Students learnt seriously from the content based programs, whereas, they enjoyed poems and dramas from recreation point of view. (iv) Students felt that they would like to have ETV programs in their timetable. (v) There was a lack of infrastructural facility for viewing the ETV programs in the school. (vi) The quality of the ETV programs needs to be enhanced. (vii) The ETV programs should not be abruptly cut off to accommodate other programs at the end.

Kewalramani (2000) studied the Instructional and feedback use of television. Teaching by teacher, teaching through television, teaching through television after traditional teaching was considered as independent variables. Scholastic achievement in school subjects (Home Science, Biology and Music) was considered as dependent variable. Intelligence, school subjects, and instructional climate were considered as moderator variables, whereas, age, grade, sex, SES, previous academic achievement, extra coaching, and television programs viewing were considered as control variables. Sample comprised of 450 female students studying in XI class. The findings were: (i) a significant effect of instruction through television was observed on the various school subjects in comparison to the traditional method of teaching. (ii) For different educational stream courses (Science, Art, and Fine Art), there was a different effect of instructions through television. (iii) The feedback effect of instructions through television was found highly significant for all the courses. (iv) Intelligence was found to play a significant role in relation to the instructional use of television.

Sarangi (2000) conducted a study with objectives: (i) to study the effect of TV Language proficiency, viewing strategy, and their interactions on the components (concept, proposition and schema) of cognitive map in terms of corresponding map scores taking intelligence as a covariate. (ii) To study the effect of television language proficiency (TLP), viewing strategy and their interaction on cognitive map (total score) by taking intelligence as a covariate. (iii) To analyze the cognitive maps of the different television language groups in relation to different production variables, namely, message track, message presentation form and message type. (iv) To analyze the cognitive maps of learners of the treatment (VS) groups in relation to different production variables, namely, message track, message

presentation form and message type. (v) To analyze the learning distortions in the cognitive maps of the students in relation to viewing strategy, television proficiency and production variables, namely, message track, message presentation form and message type. Six ETV programs for class VIII produced and telecast by the SIET, Bhubneswar Orissa, were selected. These programs were The Living Fossils, Composition of Water, The Environment, Properties of Water, the Dust Particles, and Thermal expansion of matter. Intact classroom groups were used as the sample groups. The composition of sample students from rural and urban background was deliberately manipulated to ensure a fine dispersal of TLPT. The number of students for difference ETV was different and ranged from 155 - 170. Intelligence was measured with the help of Raven's Standard Progressive Matrices and Television Language Proficiency with a standardized Television Language proficiency Test (TLPT). Cognitive map data were collected through cognitive map inventories and subsequent ratings were done with rating scale. The findings were: (i) Children's learning through ETV programs was found to be positively influenced by their Television Language Proficiency. (ii) The Television viewing strategies, namely, Direct Viewing, Viewing with Note taking, and Advance Organizer followed by viewing produced similar influences on cognitive map formation among the learners. (iii) The ideal cognitive map of the sample ETV was transacted more at the concept level than at the Proposition Level. In most cases distorted transaction of the message items was more than the meaningful transaction. (iv) Learners cognitive maps contained large amount of feeble and blurred concepts and proposition, chiefly inadequate Learning, idiosyncrasies, confusion, some amount of over-learning and marginal overgeneralization. (v) Meaningful and distorted transaction of the concepts and propositions exhibited distractive relations with message type, message form and message track. These basic relations could be instrumental for improving educational tele-production and to make TV a more potential instructional medium. (vi) The tele-visual instructional designs in general and the process of message mediation in particular need reexamination for effective education of children.

Reddy (2001) Studied the Impact of ETV Programs on Scholastic Achievement among Primary School Children in Andhra Pradesh. The objectives of the study were: (i) To study the impact of ETV programs on the scholastic achievement of primary school children in Andhra Pradesh with special reference to (a) Environmental Studies – I and (b) Environmental Studies – II. (ii) To study the opinions of the user teachers and M.E.O.s about

utilization of ETV programs with special reference to quality and operational status of T.V. sets. The hypotheses of the study were: (i) the experimental group of children exposed to ETV programs will show significant difference in their scholastic achievement in Environmental Studies I and II as compared to control group of children not exposed to ETV programs. (ii) There will be no significant difference in the scholastic achievement in the subjects Environmental Studies – I and II (EVS-I and II) as compared among the three control groups of Nalgonda, Krishna and Kurnool districts who are exposed to ETV programs. The study incorporated both survey as well as quasi-experimental design. The survey method was used to obtain information on enrollment of students, infrastructural facilities, qualifications, service experience, general functioning of TV sets and opinion of the user teachers and Mandal Education Officers about the quality and utility of ETV programs. The sample of the study constituted 21 experimental (TV schools) and 21 control schools (non TV schools) representing three regions i.e. Telangana, Coastal Andhra and Rayalseema of A.P. and one district was represented i.e. Nalgonda from Telangana, Krishna from Coastal Andhra and Kurnool from Rayalseema. The study included 42 schools, 420 students, 180 teachers and 120 Mandal Education Officers. Tools developed for the study were Achievement tests in Environmental Studies I and II for the primary school children and Questionnaires were developed to collect information from user teachers and Mandal Education Officers on various aspects of quality and utility of ETV programs. The data were analyzed with the help of t-test. The findings of the study were: (i) the experimental group had higher mean achievement score. It indicated the impact of the educational television medium on the scholastic achievement of primary schools children. (ii) The children exposed to TV were higher in their scholastic achievement as compared to the children not exposed to television. (iii) School children highlighted favorable results towards the positive influence of the TV, particularly in regard to the scholastic achievement on Environmental Studies I and II. (iv) With regard to qualifications, experience and training in teaching, teachers of the experimental and control setup were found comparable, except the teachers of experimental group who was exposed to user teaching training. (v) It was felt that if the highlights of the programs were informed in advance user teachers will be prepared in advance for better utilization of ETV programs, adequate training must be given apart from supplying user guides for better utilization of ETV programs in classroom, and lack of safety to the TV sets also caused hindrance for better utilization. (vi) Teachers opined that children liked programs presented through stories, Ballets, drama and puppetry, quiz and field trips. (vii) On the whole, the overall quality of production techniques, the structure of the content and format of

presentation as well as dramatic treatment were the major factors determining the appeal of the programs.

Singh (2001) Studied the Effect of Total Television Teaching and Computer Assisted Instruction on Achievement in Mathematics at the Secondary Level. The objectives of the study were: (i) to develop the CAI software/package. (ii) To compare the effect of Total Television Teaching with Traditional Teaching on achievement in mathematics. (iii) To compare the effect of computer-assisted instruction with traditional teaching on achievement in mathematics. (iv) To compare the effect of computer assisted instruction with total television teaching on achievement in mathematics. (v) To study whether sex accounts for differential achievement in mathematics. (vi) To study whether there is any significant interaction between sex and strategies of teaching on achievement in mathematics. The hypotheses of the study were (i) the students exposed to total television teaching perform significantly better on achievement in mathematics than the students exposed to traditional teaching. (ii) The students exposed to computer aided instruction perform significantly better on achievement in mathematics than the students exposed to traditional teaching. (iii) There is no significant difference between the students exposed to computer assisted instruction in mathematics. (iv) Sex does not account for differential achievement in mathematics. (v) There was not exists significant interaction between sex and teaching strategies. Randomized group, pre test-post test experimental design was used by researcher. The duration of treatment was 13 days. Traditional teaching, total television teaching and computer assisted instruction (CAI) were used by researcher. I.Q., sex, and socio-economic status were controlled through randomization. The sample comprised 85 students of class X from Shiwalik Public School Ropar selected by random sampling technique. Video tutorial program by CIET, New Delhi and CAI developed by researcher were used as treatment. Achievement Test developed by researcher was used for data collection. The data were analyzed by mean, mode, median, skewness, Kurtosis and two way ANOVA. The findings of the study were: (i) Total television teaching and traditional teaching did not differ significantly with respect to achievement in mathematics. (ii) Computer assisted instruction and traditional teaching did not differ significantly with respect to achievement in mathematics. (iii) Computer assisted instruction proved significantly better than total television teaching. (iv) Sex did not account for differential achievement in mathematics. (v) Interaction between strategies of teaching and sex was found to be significant.

Das (2005) Studied the Effectiveness of Educational Television (ETV) in Teaching of Mathematics in Schools of Delhi. The objectives of the study were: (i) to study the effect of modes of teaching, types of school and their interaction on achievement in different sub-topics separately. (ii) To study the effect of modes of teaching, types of school and their interaction on achievement in 'mensuration'. (iii) To compare attitude of teachers of government schools and public schools towards ETV programs. (iv) To compare attitude of principals of government and public schools towards ETV programs. The hypotheses of the study were: (i) there is no significant effect of modes of teaching, types of school and their interaction on achievement in different sub-topics. (ii) There is no significant effect of modes of teaching, types of school and their interaction on achievement in 'mensuration'. (iii) There is no significant difference in attitude of teachers of government schools and public schools towards ETV programs. (iv) There is no significant difference in the attitude of principals of government schools and public schools towards ETV programs. The present study was quasi-experimental, post-test only design with single control group. The sample comprised of class X students, teachers and principal of government and public schools of urban area of Delhi. Selection of schools was based on purposive sampling technique. Control group was taught through traditional methods, experimental group I and experimental group II were taught through ETV programs without interaction with teacher and with active participation by the teachers respectively. After teaching each sub-topic, there was a gap of fifteen day, than again taught the next subtopic. This continued till all the subtopics were taught. The tool used for data collection included questionnaire to access the ETV programs in mathematics, achievement test for selected topics, questionnaire on feedback of ETV programs by students and teachers. The data were analyzed by using percentage, mean, ANOVA and Scheffe's test. The findings of the study were: (i) Most of the students felt that ETV Programmes would help them to a great extent if some of the difficult topics were taught to them by one of the best teacher through ETV program. (ii) Many students preferred to watch ETV programs on VCR using recording whereas most of the students agreed to see live ETV programs with telephonic facility for asking questions. (iii) There should be a special slot in their school time-table. (iv) ETV programs in mathematics can help their students to understand difficult topics. (v) It should be shown using VCR to enable students to control time and pace of programs. (vi) Achievement test showed that Public school students had a better understanding of 'Area of Rectilinear figures', mensuration, circle, segment of circle, volume and surface area of cylinder-cones and spheres in comparison to the government schools students. (vii) Achievement in the topic of mensuration, area of rectilinear figures,

circle, sector and segment of a circle, volume and surface area of a cuboids were found to be independent of interaction between modes of teaching and school type- while volume and surface area of a cylinder were to be found affected by the interaction between modes of teaching and school type. (viii) Mensuration, volume and surface area of cylinder topics were found to be taught more effectively through ETV programs. Experimental group I had a better understanding of 'volume and surface area of cones and spheres'. (x) The public school teachers had a more positive attitude towards ETV programs in comparison to the government school teachers. (xi) The principals of public schools had more positive attitude towards ETV programs in comparison to the principals of government schools. (xii) Nearly 62.5% of the students rated the programs to be excellent.

2.1.4 SUM UP

Video Instructional material was found effective in terms of Achievement of students (Muddu,1978; Jeyachandran,1980; Kumar,1981; Oberai,1981; Barve,1986; Clarke,1986; Yadav,1988; Antonysamy,1989; NCERT and DAVV Project,1989; Narayanasamy,1991; Idayavani,1991; Kalimuthu,1991; Sinnathambi,1991; Pandya 1994; Lal,1996; Ilangovan,1997; Joshi,1997; Tiwari,1997; Reddy & Ramar 2001; Shinde,2002; Vekaria,2002; shukla,2003; Shehnaj,2006 and Shinde,2007) while Video Instructional Material was found not effective in terms of affective domain related behaviour (Napapongs, 1993; Marthandavarma, 1997 and Gupta, 2008). There was no significant effect of gender on Achievement of students when they were taught through Video Instructional Material and Audio Material (Behera, 1997; Shukla, 2003 and Shinde, 2007). Socio Economic Status was found not affecting significantly the Achievement of students when taught through Video Instructional Material (Behera, 1997) while Achievement of high SES students was found significantly superior to Low and Middle SES students when taught through Video Instructional Material (Pandya, 1994). Both Extrovert and Introvert can benefit equally well from Video Instructional Material (Shinde, 2007; Pandya, 1994). There was no significant influence of Residential Background on Achievement of students when they were taught through Video Instructional Material (Vekaria, 2002) while Achievement of urban students were found superior to rural students when they were taught through Video Instructional Material (Pandya, 1994). The low intelligence students achieved higher when exposed to Video Teaching Material in Home Science (Lal, 1996) while Students of Below Average Intelligence as well as Above Average Intelligence can benefit equally from Video

Instructional Material in comparison to Traditional Method (Shinde, 2007 and Kumar,1981). The majority of the students had favorable attitude towards Video Instructional Material when they were taught through Video Instructional Material (Lal, 1996; Shukla, 2003; Gupta, 2008; James, 1988; Yadav, 1988 and Shinde, 2007) The Achievement of Science Discipline students were found superior to other Discipline students when they were taught through Video Instructional Material (Pandya, 1994 and Shukla, 2003). The Achievement of English Medium Students is superior to Hindi Medium students when they were taught through Video Instructional Material. (Pandya, 1994)

School broadcasts were useful in enriching and extending the work of teachers but could not replace the classroom teaching (Shrivastava,1974) Students Achievement was found to be above 56 percent in two programs, above 60 percent in ten programs and above 70 percent in four programs that were selected for radio broadcast program (Biswal,1980) the teachers liked to listen to broadcasts related to the ways of motivating and creating interest among students for teaching language and science (Passi, Katiyar, Sansanwal and Syag, 1980) The self instructional audiocassettes were effective for developing different teaching skills (Kaur, 1981) The retention of knowledge, comprehension and total achievement scores were the highest in that group of students who were taught Geography through radio-vision approach (Dhamija, 1985) Aganwadi childrens gained significantly more than their counterparts in the control group in capabilities like listening comprehension, verbal expression, vocabulary gain and sequencing thinking, however, no significant difference was found between the experimental and control groups of primary schools (Chaudhary, 1990) Childrens showed their happiness and wanted to listen to more programs on audio cassettes for language development and listening comprehension (Sumitra, 1991) The Radio Intervention Program had positively affected on the sequential thinking of the pre-school children. In general the gains of the experimental group in cognitive development were not only significant but much higher than the control group and the Radio Intervention Program was not found to be differently affecting the cognitive development of the pre-school children at different SES level (Behera, 1997)

The use of films in teaching helped in learning more in lesser time and better retention of what learnt (Muddu, 1978) Higher cognitive abilities could be developed through programmed filmstrip (Jeyachandran, 1980) The multimedia method was more effective than either the programmed learning method and expository method, retention in learning by the multi-media method was higher than by the other two methods (Kumar, 1981) the radio

vision groups was found superior to the traditional method Group (Oberai, 1981) The use of video feedback was more effective than the use of verbal feedback (Andrews, 1985) Filmstrip was more effective than the traditional method of teaching the facts, principles and concepts in science (Barve, 1986) the interactive video presentation was found superior to the lecture based presentation (Clarke, 1986) VIM has helped in understanding the various concepts discussed therein and attitude towards model and towards VIM were found to be favorable (James, 1988) Developed video instructional material helped in understanding the various concepts of Inquiry Training Model and Attitudes of students were found favorable towards video instructional material (Yadav, 1988) learning through viewing of the video films was more effective than learning through charts (Antonysamy, 1989) video demonstration supported by observation and practice was effective in developing the theoretical understanding of Micro-Teaching in B.Ed (NCERT and DAVV Project, 1989) the student's learned more words in language when they were taught by video lessons and the students improved their vocabulary in Tamil language after viewing the video program on language development (Narayansamy, 1991) the students taught by the video program on 'Weathering' and 'work' performed better than the students taught by the traditional lecture method and the students improved their learning of the concept after viewing the video program (Idyavani, 1991).

The students taught through the video program learnt more concepts of environment pollution than those who were taught by the lecture method (Kalimuthu, 1991) Children taught through video program learnt more social concepts than those taught by the traditional method. And working children improved their social awareness after viewing the video program (Sinnathambi, 1991) the conventional method yields more gains than the instructional video cassette and the three instructional strategies viz. instructional video cassette, programmed video cassette and conventional method were equally effective for both verbal knowledge and skill at three objective categories knowledge Understanding and higher order understanding (Napapongs, 1993) Video Instructional Material on Woman and Law was found to enhance Achievement of students in home science (Pandya ,1994) Student's interest increased when instructed through audio-visual media (Joshi, 1995) Students exposed to video teaching learning material (VTLM) and video aided instruction (VAI) retained more concepts in home science as compared to students in conventional teaching (CT) (Lal, 1996) AVPSS audio-visual presentation as a support system is the most effective instructional strategy while CTM conventional teaching method is the least effective in modifying the skill

of listening comprehension in English among the higher secondary students (Ilangovan, 1997).

The VIM was found to be effective in terms of theoretical understanding of CAM, reactions towards CAM, reactions towards VIM and willingness for implementation of CAM (Joshi, 1997) Conventional lecture method was more effective than video, audio, and slides in cognitive and affective behavior towards AIDS epidemic and the different instructional media viz. audio, video, posters and slides were also not effective in changing the attitude towards AIDS epidemic (Marthandavarma, 1997) the girls were benefited most in terms of gain in knowledge of anemia when information about anemia were given through Video or folk song (Tiwari, 1997) Multimedia CAI Package is considered to be an effective and efficient mode of learning (Shinde, 2002) The effectiveness of video instructional program in teaching science to standard VIII was found directly proportional to the level of achievement (Vekaria, 2002).

The student teachers who were taught through the video programs with discussion were better in achievement than the students who were taught through video programs without discussion and the student teachers who were taught through the video programs with discussion and video programs without discussion were better than the student's teachers who were taught through the traditional methods as far as their achievement was concerned (Shukla, 2003) Video lessons based on Videography of puppet-show were found most effective than the Method based on puppet-show while traditional method was found least effective for the Achievement of girl students in History (Shehnaz, 2006)

Video Instructional Material on Research Methodology & Statistics was found to be effective in terms of Achievement in Research Methodology and Reactions towards instructional material on Research Methodology & Statistics (Shinde, 2007) Video Instructional Material on Research Methodology & Statistics was found to be superior to Traditional Method for teaching Research Methodology when the groups were not matched with respect to intelligence as well as when the groups were matched with intelligence (Shinde, 2007) There was no significant change in terms of overall value clarification and overall value judgment of the Experimental Group treated with Video Instructional Material (Gupta, 2008)

The Radio Intervention Program was not found to be differently affecting the cognitive development of the pre-school boys and girls (Behera, 1997) Sex of the student's

teachers did not affect their achievement significantly (Shukla, 2003) Achievement in Research Methodology of males and females was found to be equally well when groups were matched on intelligence and both males and females benefit equally well from Video Instructional Material on Research Methodology & Statistics in comparison to Traditional Method when groups were matched with respect to intelligence (Shinde, 2007) There was no significant effect of treatment, Gender and their interaction on overall value judgement and value clarification by taking pre test scores as covariate. School broadcasts were useful in enriching and extending the work of teacher but could not replace the classroom teaching. (Shrivastava, 1974; Biswal, 1980; Educational Technology Cell, 1989; Choudhary, 1990) Majority of the radio programs were not related to the syllabus (Singh and Shukla, 1980; Goel, 1982, Sudame and Goel, 1988).

TV programs were not effective in terms of learning by students (Roy, 1974; Arularam, 1990; Choudhary, 1990; Kapadia, 1992) Children exposed to ETV programs had superior scholastic attainment as compared to children of the non exposed group (Mohanty, 1988; Kewalramani, 2000; Sarangi, 2000; Reddy, 2001). Teachers exposed to ETV programs achieved significantly more on their knowledge, understanding and in actual classroom interaction (Behra, 1990). Many teachers did not find school television (STV) programmes useful as they were not different from classroom teaching or were not presented in such a manner as to sustain student's motivation. The quality of the program was not high. The number of program per class was not adequate (Phutela, 1980). School TV programs were running for long and have not changed over years. The programs were of poor quality (Joshi, 1987).

2.1.5 IMPLICATIONS OF THE REVIEW OF RELATED LITERATURE FOR THE PRESENT STUDY

Researchers developed different types of Audio Instructional Materials, Video Instructional Material and Educational Video Material for Television and studied their effectiveness on the basis of Achievement in subject. From the review presented in this chapter, it can be said that Audio Instructional Material and Video Instructional Material was found effective by most of researchers alone as well as in combination with other Method of Teaching. After going through related literature, the investigator realized that very few researches were conducted related to the use of Video Instructional Material in classroom at B.Ed level and probably no study conducted for teaching Educational Psychology to B.Ed

students through Video Instructional Material. Investigator found some inconsistency in findings of different researchers. Video Instructional material was found effective in terms of Achievement of students (Muddu,1978; Jeyachandran,1980; Kumar,1981; Oberai,1981; Barve,1986; Clarke,1986; Yadav,1988; Antonysamy,1989; NCERT and DAVV Project,1989; Narayanasamy,1991; Idayavani,1991; Kalimuthu,1991; Sinnathambi,1991; Pandya 1994; Lal,1996; Ilangovan,1997; Joshi,1997; Tiwari,1997; Reddy & Ramar 2001; Shinde,2002; Vekaria,2002; shukla,2003; Shehnaj,2006 and Shinde,2007) while Video Instructional Material was found ineffective in terms of affective domain related behaviour (Napapongs, 1993; Marthandavarma, 1997 and Gupta, 2008).

The Radio Intervention Program was not found to be differently affecting the language development and cognitive development of the pre-school children at different SES levels (Behera, 1997), many teachers did not find school television (STV) programmes useful as they were not different from classroom teaching or were not presented in such a manner as to sustain student's motivation. The quality of the program was not high. The number of program per class was not adequate (Phutela, 1980). School TV programs were running for long and have not changed over years. The programs were of poor quality (Joshi, 1987).

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The low intelligence students achieved higher when exposed to Video Teaching Material in Home Science (Lal, 1996) while Students of Below Average Intelligence as well as Above Average Intelligence can benefit equally from Video Instructional Material in comparison to Traditional Method (Shinde, 2007 and Kumar,1981). The Achievement of Science Discipline students were found superior to other Discipline students when they were taught through Video Instructional Material (Pandya, 1994 and Shukla, 2003).

The Achievement of English Medium Students is superior to Hindi Medium students when they were taught through Video Instructional Material. (Pandya, 1994) The majority of the students had favorable attitude towards Video Instructional Material when they were taught through Video Instructional Material (Lal, 1996; Shukla, 2003; Gupta, 2008; James, 1988; Yadav, 1988 and Shinde, 2007)

Some previous researchers studied interaction effect of Intelligence when Method of Teaching was independent variable and achievement is dependent variable. Lal (1996) found that the low intelligence student's achievement significantly higher when exposed to video teaching learning material as compared to high Intelligence student. Joshi (1997) found that there will be no significant effect of treatment, intelligence and their interaction on theoretical understanding of CAM when taught through Video Instructional Material. Kumar (1981) found that there was no effect of intelligence when, taught by three different methods exposition, programmed learning method and multimedia method. Ravindranath (1982) found that there was positive and significant correlation between intelligence and achievement when taught through a multimedia instructional strategy. Menon (1984) found that relationship between intelligence and academic achievement was not significant when taught through Multimedia approach. Vardhini (1983) found that there was significant relationship between intelligence and achievement when taught through multimedia Instructional strategy. Napapong (1993) found that three Instructional strategies viz., instructional video cassette, programmed video cassette and conventional method are equally effective for verbal knowledge and skill at three objective categories viz: knowledge, understanding and higher order understanding. He also found that the conventional method yields more gains than the instructional videocassettes.

It is clear from above discussion that there is inconsistency in findings of different researches on Video Instructional Material hence it is required to study more on use of Video Instructional Material in classrooms.