

Chapter - I

Introduction

CHAPTER -I

INTRODUCTION

Rapid progress in scientific pursue of things has revolutionized all our efforts including in the matter of research and development related to pedagogic intervention. Under the current phase of development pedagogy is no more confined to the traditional practices of verbal sharing of knowledge within the four walls of the classroom.

The ever expanding horizon of knowledge today is so much diversified that it now demands our consistent effort to evolve scientific teaching methods with objectivity as their foci. Considering from this view point it is held that all forms of pedagogic interventions to cater school curricula must invariably involve the simultaneous use of scientific equipments called as multimedia programmes.

Teaching method in order to become scientific have to be supplemented with scientifically innovated material aids (progresses) utilized in scientific manner to ensure objectivity in pedagogy. Thus any type of teaching practice not programmed by teaching programmatically is far away from becoming scientific because such methods utterly held to serve objectivity which is the need the need of the day.

Use of Multimedia Programme during teaching learning process largely depends upon the teacher, upon how he internalizes the subject matter to be taught upon how he wants to help his pupils for mental imaging or thinking of facts and upon how he wishes to convince his students. Therefore scientific selection of Multimedia Programmes also as vital as using them scientifically.

Multimedia Programme are the most effective variety of aids. The evolution of Television and Computer has further diversified the utilities of Multimedia Programmes far and wide without being deviated from the primary focus of

objectivity. Today the utilization of Multimedia Programmes in disseminating knowledge either inside the classroom or beyond that is so much wide-spread and versatile that the other form of indoor teaching aids are slowly moving towards their virtual extinction.

1.1.1 Background of Multimedia

In the early days, calculator was magic and that magic was not allowed in the classroom. the apprehension of those orthodox teachers was that it may turn the child's creativity for learning mathematics and which may hamper his power of imagination and computational skills in long run.

The first computers were cautiously being accepted. In fact, some new curricula began to appear centered around programming. Programming was going to be used to teach logic and logic was something that everyone needed, programming shifted from being an obscure college class to "the state of the art" in elementary schools. But for some reason mainstream teachers were slow to adopt it. They wanted some thing more. In-service classes were held; trying to convince teachers that programming could used in most subject area.

Use the new technology to mimic the old. It felt comfortable not like spending nine hours writing a drill and practice programme that student would use for ten minutes. Then the computer using teachers fought back. Look how easy it is to write a drill and practice programme. We can even randomize the questions it asks the students! We can have the programme adjust its own difficulty to fit the student sitting at the keyboard! We are on our way to individualizing instruction in a way that was impossible before the using multimedia in education.

1.1.2 Guide line of NCF -2005

According to Guidelines of NCF-2005

Generally, technology has been used as a medium to disseminate information, and as a way of addressing the scarcity of good teachers, usually the consequence of poor recruitment and defective recruitment policies at the state level

ET, which is used to redress the problem of quality of teaching, can only exacerbate the disillusionment of the teachers with teaching. If ET is to become a means of enhancing curricular reform, it must treat the majority of teachers and children not merely as consumers but also as active producers. There must be widespread consultation regarding use of technology during development and implementation. ET facilities need to be used at all levels of schools, cluster and blocks resource centers, district, state and national level institutions in order to provide hands on experience in using educational software along with hardware's. Such experiences provided to children, teachers and teacher educators, which could include something as simple as the audio recording of an interview with a village elder, to making a video film or a video game, providing children more direct access to MULTIMEDIA

Practical knowledge and skills of using Information and Communication Technology (ICT), along with various hardware's allowing them to mix and make their own productions and to present their own experience, which could provide them with new opportunities to explore their own creative imagination.

Such an experience of ET production, rather than only watching and listening to programme in a passive way, can lay the foundation for far better utilization of the country's existing enormous ET facilities Interactive, Net-enabled computers, rather than only CD-based computer usage would facilitate a meaningful integration of computers and remote areas by increasing connectivity & enhancing access to ideas and information. Such two-way interactivity rather than one-way reception through T.V. Programmes minimizes the broad and potential use of ICT for its effective utilization in the classroom.

Rather than trying to reproduce and mimic classroom situations, by teaching the textbooks or teaching the textbook content, or animating lab experiments. ET could realize far better potential if topics are taken up but developed into non-didactic explorations, leaving learners free to relate to the knowledge web progressively, and learn at their own levels of interest. Such access to knowledge in

regional languages is still very limited and is one of the main reasons for the persistent and growing divide between learners from urban and rural schools, and learners from regional language and English medium schools. The potential of such encyclopedias and documentaries for children is still underdeveloped, Materials such as textbooks, workbooks and handbooks for teachers can be designed with the awareness of existing stocks of good-quality audio or video material and sites where extra resources are available on the Net. Classics of cinema need to be made accessible through such measures. For instance, a child studying about village life should have easy access to Satyajit Ray's classic, Pather Panchali, either as a CD to be borrowed from the CRC or to be viewed on a nationally managed website future textbooks need to be conceptualized and designed in a ways that might integrate knowledge in different subjects and experiences, thus facilitating the assimilation of knowledge.

Integration of knowledge and experience along these lines would take away the sense of burden and boredom that our present-day education induces. In science and mathematics, and in teaching children with disabilities the potential of ET. It is widely appreciated. It is important to realize this potential in achieving curricular goals, with more age-specific planning on the use of ET.

1.1.3 Multimedia : Meaning and Definition

Multimedia (Lat. Multum + Medium) is media that uses multiple forms of information content and information processing (e.g. text, audio, graphics, animation, video, interactivity) to inform or entertain the (user) audience. Multimedia also refers to the use of electronic media to store and experience multimedia content. Multimedia is similar to traditional mixed media in fine art craft, puppets, role play but with a broader scope. The term "rich media" is synonymous for interactive multimedia.

Types of Multimedia

Multimedia has been broadly classified in to two types

- I. Linear
- II. Non-Linear

Multimedia may be broadly divided into linear and non-linear categories. Linear active content progresses without any navigation control for the viewer such as a cinema presentation. Non-linear content offers user interactivity to control progress as used with a computer game or used in self-paced computer based training. Non-linear content is also known as hypermedia content.

Multimedia presentations can be live or recorded. A recorded presentation may allow interactivity via a navigation system. A live multimedia presentation may allow interactivity via interaction with the presenter or performer.

History of the term

In 1965 the term Multi-media was used to describe the Exploding Plastic Inevitable, a performance that combined live rock music, cinema, experimental lighting and performance art.

In the intervening forty years the word has taken on a different meanings. In the late 1970s the term was used to describe presentations consisting of multi-projector slide shows timed to an audio track. In the 1990s it took on its current meaning. In common usage the term multimedia refers to an electronically delivered combination of media including video, still images, audio, text in such a way that can be accessed interactively. Much of the content on the web today falls within this definition as understood by millions.

Multimedia Education

It is quite well observed that, well within the lifetimes of today's students, it will be commonplace for almost all educated people to create multimedia, as well as use multimedia information that others prepare. This multimedia will either be for standalone play back as in a CD on a PC or for distribution over the Web. The advantages of learning or acquiring information for knowledge or entertainment by employing multiple sensory modalities hardly need restating. However, it is important to emphasize the advantages of actively creating multimedia, in addition to passively using others' creations. This means that student-prepared book reports become multimedia book reports; lab reports include video observations and audio annotation; and the traditionally written Spanish homework becomes not just text, but also includes audio, graphics, and even video. It means that business people routinely add media to their memos, E-mail, and reports. Creating and making effective use of multimedia will substantially enrich peoples' personal lives, not just school lives and business lives. Few can doubt the enjoyment that multimedia E-mail delivers to grandparents that live remotely to their grandchildren. Many of today's students will work actively in some capacity with interactive, digital information, in jobs that promise excitement similar to the present excitement.

The other vital areas where use of such multimedia programmes can further find their importance are :

- Qualitative response to the sensory perception of the pupils by fully or partially substituting the traditional practice of verbal teaching.
- Liberation of pupils from the compulsion of utilizing maximum time for curricular activities.
- Elimination of psychological alienation of pupils from the subject matters of school curriculum because of boring pedagogy like verbal teaching.

- Minimization of difference among high, medium and low achievers in particular class.

This is why it is worth nothing a popular saying that.

“If I listen, I forget,
If I see, I remember and
If I do, I understand.”

The saying signifies that, pupils excel in an opportunity of doing things for themselves because of proper sense perception. While, only exhibition or display of things to them during teaching is still productive, the so called ‘chalk and talk method’ proves to be of no use at all this is the importance of multimedia and more particularly the multimedia programmes.

1.1.4 Educational Multimedia programmes and Teaching

Strictly speaking, multimedia programmes are the essential components of all methods of teaching. They are must in methods like demonstration, observation, project, experimentation, dramatization, discussion etc. While in method like lecture and problem solving, they are felt optional.

So far as the conventional method like lecture & problem solving techniques are concerned use of multimedia programmes should not be optional at primary level & secondary level. Because the verbal delivery of lecture by teacher often becomes like a constant hammering on the students and fails to respond or convince the sensory manipulative capacity of the children.

Today, children’s are compelled to invest maximum time for better understanding of different subject matters which would have been easier and less

time consuming had they been taught with the help of multimedia. Because of this children are bound to give up many extra-curricular and recreational activities which are essential for the total growth of their body and brain.

Absence of no use of multimedia in conventional methods of teaching over the time also separates the children psychologically from the subject matter of the school curriculum. Because without multimedia the pedagogy often becomes boring and burden some to them.

Again teaching without multimedia-programmes often produces differential impact on the children, even in the same class. It may be beneficial to the high achievers while it is to the medium and low achievers. Thus children of the same class are divided into groups according to their mental potential. There cannot be good sharing among themselves under such circumstances. Use of multimedia prograommes not only solve the problem up to 90% but it can certainly minimizes the difference to a great extent.

Today, institutions where use of multimedia programme is an official culture of study, the children are found to excel over others in all curricular and extra-curricular aspects. The demand of such schools among the parents are very high.

Extensive use of multimedia programmes in schools, strictly speaking is not a matter of cost as much as it is not a matter of keen efforts by the teacher community, the school administration and after all the governing policy for this.

1.1.5 Importance of Educational Multimedia Programme

Rapid change in the sphere of society, economy, politics, science and technology are the characteristics feature of the modern world. This first change is most likely to catch a teachers in its sweep for which it is hardly possible to retain all up-to-date information minutely. Therefore, a teacher cannot be expected to become the fountain of all relevant knowledge in a given matter always.

The other factors which contain a teacher in becoming a perfect substitute of a treasure of information that can be effectively shared with all his pupils are continuous.

- Explosion of knowledge ideas and approaches in always all fields and emergence of newer subjects and concepts of teaching following researches on effective teachings.
- Over crowded classrooms which is a characteristic feature of Indian schools.
- Vastness in the diversities related to particular topic at global level.
- Lack of scope and opportunity to include all new development in the text books which are considered to be primary institutional materials in our country.
- Develop self-confidence, creativity among the student at all level of elementary schools.

In order to overcome the aforesaid obstacles a teacher must be equipped with proper communication aids widely selected and carefully divided to cater the challenges of teachings in the modern era. Multimedia programmes can provide the best answer to such a problem.

1.1.6 Classification of Educational Multimedia Programmes

All the Multimedia programme can be broadly clubbed into six groups, i.e. the theoretical part, animation, graphical representation, activities related to subject matter, quizzes dealing with exercise, model question paper etc. All these multimedia components are in audio-visual form.

- The theoretical part in multimedia include all the subject matter related to topic, and this matter process through activity Example – Matter based activity, Animation in audio-visual form.

- The animation part in multimedia include all activities in movable form.
- The Graphical representation include all diagrammatic part in graphical form to develop specific creativity among the students.
- In Multimedia programme special activities are given to make subject matter more meaningful & skillful.
- In Multimedia Programme Quizzes are also given, these Quizzes are based on subject matter. These Quizzes are interesting for students to solve the problems related to subject matter.
- In classroom students are more interested to see different type of question. For this purpose model question paper is also given in Multimedia Programme.

1.1.7 General Advantages of Educational Multimedia Programmes

It should not be thought of that Multimedia programmes occupy the place of teachers. Teachers role is indispensable in teaching-learning process. Hence Multimedia Programmes are effective means for achieving desirable goals in teaching and learning. As an effective means their function is great and a teacher should be aware of their functions in order that he may use them as per need, purpose and situation. A few of them are discussed here.

I. Educational Multimedia Programmes Motivate Students and Create Interest

Multimedia programmes are motivators and it can be said that they are the “energizers” of teaching learning process. They stimulate interest of pupils to gain further knowledge. Interest is not an end in itself. Interest that has been created by means of an audio-visual aids must act as a springboard for launching the students into a wide variety of learning activities. A teacher can use variety of programmes. For making his teaching interesting clear and dynamic because Multimedia Programmes not only classify the concepts, ideas, points of a topic, but also bring

home the perceptual panorama into the classroom. This itself is sufficient to motivate students.

II. Educational Multimedia Programmes Modify Attitudes

Attitudes are said to be learned dispositions to react to our environment in certain ways. Multimedia Programmes create the desirable environment in the classroom so as to have the student attitude to react favourably to the lesson. Multimedia programmes modify the attitudes in various ways. The ways may be operant conditioning or information feeding of logical thinking or effective comlogical thinking or effective communication. Multimedia Programmes do all these functions effectively.

III. Educational Multimedia Programme Provide Variety of Teaching

Traditional teaching creates drudgery in the classroom. It is monotonous. Change is the law of nature and thus everyone enjoys variety. Teaching with different Multimedia provide varieties to classroom activities. Students, see, hear and experiences varieties in teaching by which their readiness to learn is evoked.

IV. Educational Multimedia Programmes Provide Integrated Experiences Varying from Abstract to Concrete

Multimedia Programme materials supply a concrete basis for conceptual thinking, giving rise to meaningful. Multimedia technology presents abstract information to the learners in various forms on many occasions teachers have to prepare the students for experiences which are normally beyond the scope of their comprehension. Teachers in this complex age should be able to guide them to the vast reservoir of knowledge by making use of additional resources like, Animation, Activities related to topic, Graphical representation, charts in audio-visual form, globes in audio visual form, maps, Quizzes dealing with exercise, Model Question

Paper, Computer. All these resource enhance clarity of communication and increase the speed of comprehension.

V. Educational Multimedia Programmes provide Substitutes for Direct-Contact of Students with Environment

Multimedia Programmes material enables to cut through the physical limit of time and space. A teacher may take his class by means of an appropriate motion picture OR Animation to any distant place and to 'meet' the people who live there and to observe places and things such media may serve as a magic carpet for providing needed, experiences. Motion pictures, computer, and carefully prepared other activities sequences would be particularly valuable. These stimulate pupil interest.

VI. Educational Multimedia Programme Material Help Generalization

From study of individual facts generalizations are 'made' Texts become one-sided. But when textual facts are either accompanied activities through multimedia or through direct experiences, generalization takes place. Generalization to a process of remembering and Multimedia (Animation) help in a great deal.

VII. Educational Multimedia Programme Materials Results in Greater Acquisition of Knowledge

The use of multimedia ensures greater acquisition knowledge of facts and ensures longer retention of the information gained. Multimedia Programme materials provide first hand experiences in a variety of ways and sometimes makes the pupils actively participate. Multimedia technology provides pupils with meaningful source of experience visual sources as well as many additional resources.

VIII. Educational Multimedia Programme Provides Opportunity to Students in Manipulative Skills

Multimedia Programmes students can handle very easily if they have a small knowledge of computer. During the handling of computer student experience the facts in multimedia and manipulate a Animation, Activities, Quizzes, Pictures, Map in audio-visual form. By this their natural desire and this their natural desire and curiosity is satisfied.

IX. Educational Multimedia Programme Brings A change in Classroom Atmosphere

During the use of multimedia in the classroom, students are very often feel at ease. They talk, laugh, move about, question, comment upon and do mutually as they do outside. Besides students activities Multimedia programmes change the atmosphere of the classroom from the traditional to a new one. Changed atmosphere bring change in attitudes of students towards learning and activity.

1.1.8 Role of Educational Multimedia in Science Education

Children, in today's technologically advanced society, are growing up in an educational environment that is struggling to overcome the teacher centered classroom in which student achievement is based on a system of memorization and recitation of material contained in a single content area textbook. In order for students to succeed in today's competitive society, they must be given the opportunity and the guidance to develop not only knowledge level skills, but they should graduate from high school with the ability to use that knowledge in "real world" situations.

Teachers are slowly realizing that traditional methods of teaching are no longer capable of providing students with an educational foundation that is strong enough to withstand the pressures of such a technologically dependent society. Traditionally, textbooks have been the focal point for most of the instruction that students incur during class lectures or other related educational activities. Whether

listening to classroom discussion or working on class assignments, most students either use their textbooks exclusively and copy word, or they simply ignore the book because they feel it is too complicated or confusing.

Many teachers, who feel the pressure of covering a certain amount of specific material in a given amount of time, often view this static one-way instructional system involving textbooks as an efficient way of covering material. However, what teachers make up for in material covered and time saved, their students lose in comprehension and relevance. One way educators are striving to improve instructional teaching methods is by organizing classroom activities around central themes or concepts called thematic units.

Initially teachers provide background information in order to spark a student's interest and to give him or her important insight into a particular subject so that he or she will begin thinking about the topics and start forming opinions and asking questions. Once the initial learning and questioning process begins, teachers need access to a wide range of motivating instructional media and students need access to a wide range of relevant informational data. Together, the teacher and the students begin exploring the possibilities.

Students of today have been raised in a society that is dependent on television, video games, computer software, and most recently, the Internet. Everywhere you go it is almost impossible to find anything that has not either been manufactured by computers and software, or that is not dependent on computer technology for its functionality. If classroom-teaching methodology continues to follow the traditional pathway, we are likely to see a continued decline in the academic progress of our children, because the inherent technology-based learning styles of today's students diverge from the out-of-date teaching styles of the instructors.

In an effort to reform science education, educators have begun to focus on effective science teaching and learning. Schools and districts all over the United States are searching for ways to revise current science curriculums to reflect a more *student-centered and meaningful approach to science instruction*. Most educators are using views such as the ones above to develop a classroom atmosphere that will create a partnership between students, teachers, and technology that will build on student curiosity and creativity; emphasize quality of understanding rather than quantity of information; expose students to concepts in a variety of contexts; and make students aware of the social and historical influence of science and technology.

Returning to the idea of centering classroom activities around thematic units; many educators are searching for unique ways of integrating diverse arrays of educational as well as instructional material into science classrooms. Recent developments in technology have given teachers a way of providing students with material that seems to be improving student attitudes, motivation, understanding, transfer, equity, and responsibility for one's own learning. The avenue for implementing these instructional and educational ideas has been paved by advancements in multimedia technology.

There are many applications for this multimedia technology in the science classroom. Teachers are discovering ways to spark student's interests and motivate them to discover by incorporating a wide variety of software designed classroom presentations that are visually descriptive and relevant to the content material. Students are also becoming more involved in the learning process by exploring multimedia such as CD-ROM-based textbooks, tutorials and laboratory experiments, as well as, a diverse arena of Internet-based telecommunications and online experiments and research. The possibilities seem limited only by the imagination and determination of the teachers and students involved. Integrating multimedia technology into educational thematic units seems to be a solution to the problem of student motivation and involvement in science that is relative to their own interactions with society.

1.1.9 Technology Supports in Learning

Technology can enhance the authenticity of classroom projects is not meant to imply that using technology will necessarily make a classroom assignment authentic. Authenticity lies more in the goals and content of the activity, as designed by the teacher, than in the use of technology. These observations across sites gave us the opportunity to contrast skills learning and technology use in isolation with the exercise of the same skills in the context of meaningful projects. Tasks that were grounded in activities that were challenging and made sense to students had a positive impact on their motivation, understanding, and achievement.

Computers in pairs, students engaged in lively discussions regarding both the form and content of the letters, seeking out one another's input and revising as they went. They put careful thought into how much and what kind of information to include as well as how to present their requests in the most compelling fashion. The activity continued over multiple sessions across several days, culminating in the printing and the actual mailing of the letters.

In contrast, at another site, middle school students participated in a 50-minute word processing class that during one class period focused on the writing of business letters. The teacher instructed the students to "just make up" the content (e.g., a request or a complaint to a fictitious business), placing the emphasis of her instruction and feedback on proper formatting and on the mechanics of using a word processor. Many students were at a loss for what to write as they struggled with the task of generating content in the absence of a meaningful context. Some students were visibly bored by the activity, and there was little discussion between students regarding their work.

When students are using technology as a tool or a support for communicating with others, they are in an active role rather than the passive role of recipient of information transmitted by a teacher, textbook, or broadcast. The student

is actively making choices about how to generate, obtain, manipulate, or display information. Technology use allows many more students to be actively thinking about information, making choices, and executing skills than is typical in teacher-led lessons. *Each child can be involved in independent or small-group work with the technology.* Moreover, when technology is used as a tool to support students in performing authentic tasks, the students are in the position of defining their goals, making design decisions, and evaluating their progress.

The teacher's role changes as well. The teacher is no longer the center of attention as the dispenser of information, but rather plays the role of facilitator, setting project goals and providing guidelines and resources, moving from student to student or group to group, providing suggestions and support for student activity. The majority of classroom time may be devoted to independent and collaborative projects.

As students work on their technology-supported products, the teacher moves through the room, looking over shoulders, asking about the reasons for various design choices, and suggesting resources that might be used. Such changes were reflected in teachers' reports that technology use increased the amount of collaboration, students' regulation of their own learning, and students' teaching teachers.

Role of Teachers

Teachers who make extensive use of cooperative learning and project-based work develop skills as intellectual "coaches" and undertake a new role as the activity designer and facilitator rather than the chief "doer" or center of attention. Project-based work and cooperative learning approaches prompt this change in roles, whether technology is used or not. However, technology use is highly compatible with this new teacher role.

Several teachers reported that technology led them to give their students more control after they witnessed what students were able to do with technology and

how they were willing and able to take responsibility for teaching themselves and one another. Technology facilitates a change in the teacher's role also by making it easier to act as a diagnostician and coach for the cognitive aspects of task performance.

Technology can help to make the students' thinking processes more visible to the teacher, something that does not happen when students simply turn in a completed assignment for checking and grading. As teachers observe their students working with computer applications, they can see the choices each student is making, stop and ask about the student's goals, and make suggestions for revisions or different strategies. It is easier also for the teacher to take momentary control of the computer to demonstrate what is meant.

Moreover, technology often puts teachers in the role of learner alongside their students. This is a big change from the traditional role of the teacher as the one with all the knowledge and right answers. Instead, students are given the chance to see their teachers struggle with the acquisition of a new set of skills. Teachers who are not threatened by this change in roles report that the experience sensitizes them to the learning process in unexpected ways, giving them new insights into their students as learners. Engaging in the process of exploring technology with their students further provides teachers with an opportunity to demonstrate aspects of problem solving and learning that are rarely made visible in more product-oriented classrooms.

In addition to helping the teacher with technology, students also support the teacher by providing help to their peers. Students who are technology savvy are usually eager to share their knowledge with others. In technology-using classrooms, there are numerous examples of students acting as peer coaches for each other, offering advice when a peer had trouble achieving a desired result with the software. Such advice giving was continual when students worked together in small groups, but was quite common also among students working individually on computers.

Student coaching roles were generally not something that teachers had set up in any formal way, rather they emerged naturally as part of the parallel technology-based activity in the classroom. Several teachers remarked that the technology stimulated much more advice seeking and giving among students and that this propensity toward collaboration carried over into non-technology-based activities: It's a much more facilitating atmosphere because kids help each other so much on the computer. It changes the style and tone of the classroom a lot.

Teachers reported that technology-based tasks can be excellent vehicles for prompting sustained interaction among students. In a fourth-grade class in which native Spanish speakers were transitioning to the use of English, the teacher reported that some students felt more comfortable working in English when they could work in pairs at the computer. The teacher reported that some students who would not speak to her in English would work with an English-language programme and speak English with a peer tutor. Several teachers at different sites with local or wide area networks reported that the ability to communicate over a network opened the door to exchanges between students who otherwise might never engage in dialogue.

Classes and whole schools participated in programmes in which students learned expectations for interaction with each other, the responsibilities of differentiated roles for cooperative work, strategies for coping with conflict, and the qualities of helpful comments and constructive feedback.

When complex tasks, collaborative teams, and technology are brought together, a great variety of skills are needed. Command of the subject matter, strategies for obtaining information and solving problems, communication and cooperative skills, and technology skills are all needed. Students who may not excel in one area are likely to excel in another. Especially when students are explicitly taught how to work together in productive teams, the teams evolve to function effectively, with students making diverse contributions.

In many classrooms, teachers purposefully composed groups of mixed abilities, ethnicities, and genders. In classrooms of mixed grades, the ages of students within groups also varied. Such heterogeneous groupings allow for multiple perspectives and diverse skills, enhancing the quality of project work and creating new avenues for individual specialization and peer tutoring.

Educational reformers call for new kinds of assessment embedded within learning activities and capturing the kinds of skilled intellectual performances that are the real goals for our students. Technology supports this practice when used in the context of meaningful tasks and projects because it provides products (student writing, multimedia presentations, computer simulations, spreadsheets) that can be stored, duplicated, shared, and discussed.

Improvements in Student Performance

Teachers for the classes and activities observed at the case study sites were nearly unanimous also in reporting that students were able to handle more complex assignments and engage in higher-order thinking skills because of the supports and capabilities provided by technology. Teachers report that students are more able and willing to edit their texts and engage in critical rereading when writing at the computer. Math tool, such as spreadsheets and LOGO programmes, can assist students in gaining greater conceptual understanding through concrete interaction and feedback.

Science simulation allow students to observe and manipulate multiple aspects of complex micro worlds. Database software provides students with a tool for gathering and analyzing large amounts of information in different ways. Across all of these applications, the technology itself poses a problem-solving challenge as students learn to master the features of the tool to accomplish their desired goal. Further, the computer tasks are often done in collaboration with peers, which in turn

adds a new layer of complexity through the feedback and the communication requirements that working with others entails.

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Multiple media give students choices about how best to convey a given idea (e.g., through text, video, animation). In part because they have the capability to produce more professional-looking products and the tools to manipulate the way information is presented, students in many technology-using classes are reportedly spending more time on design and audience presentation issues.

The greater use of outside information sources was an effect of technology use cited by teachers from 10 classrooms. This effect was most obvious in classrooms that had incorporated telecommunications activities, but other classes used technologies such as satellite broadcasts, tele-facsimiles, and the telephone to help provide access to external sources of information. Schools with links to the Internet reported that the network brought "the outside world" into the classroom, enabling students to gather data directly from a wide variety of sources and to learn about life beyond the classroom walls through interpersonal communication with e-mail participants from around the world.

1.2.1 Objectives of the study

The following objectives were kept in view :

- (1) To study quality, format and treatment of Educational Multi-media Programmes on (animation).
- (2) To study quality, format and treatment of Educational Multi-media Programmes on (Project Activities).
- (3) To study quality, format and treatment of Educational Multi-media Programmes on (Quizzes).

- (4) To study quality, format and treatment of Educational Multi-media Programmes on (Graphical representation)
- (5) To study the usefulness of Educational Multimedia Programme to tackle different class room situations.

1.2.2 Delimitation of the study

In view of the constraints of time and resources, the scope of the present study is delimited. The present study is a partial fulfillment of the requirement formal degree and the time available at the disposal of the researcher is a very short span. So the study is confined only to Warud Tahsil in Amravati District of Maharashtra State.

- (1) The study is confined to the Tahsil of Warud of Amravati District in Maharashtra State.
- (2) The study is confined to the Warud Tahsil.
- (3) The study is confined 08 number of elementary schools of Warud Tahsil and seventh class students.
- (4) The study is restricted to 125 children of primary school and 8 number of teachers of the sample schools.

1.2.3 Operational Definition of the Key Terms Used

The key terms which have been used in the title of the study are operationally defined here:-

- i) Educational Multimedia Programme

Multimedia word is related to Educational Technology. Educational technology means the application of the laws of science to the process of education. Laws and recent discoveries of science as well as technology of sciences are applied to the educational process.

Educational technology include the use of all educational hard wares which are machines. It include the use of teaching machines, tape recorders films, language, laboratories, radio, television, computer and other science technology based materials in the schools. Educational process is not based on teacher alone. It should include greater use of modern tools and materials like programmed instruction.

Educational technology is the result of such thinking. It is practical art of Education based on various technological innovations. Such as printing photography and so on some times a new word multimedia max is also used in place of Educational Technology.

In National Curriculum framework 2005 more emphasis should be given on Educational Technology.

The basic tenet of ET viz, using all available resources (human and Non-human) in a systematic manner to find viable solutions to educational problems.

The key phrases in ET are appropriate technology, that is, appropriate to the task in hand for meeting specific educational objectives, and the organization of all available resources into a workable system, which is checked again and again to ensure that it is appropriate and changing it where it is not working. Formative evaluation and summative evaluation are essential parts of ET. In applying the discipline of ET to the field of education, it is imperative that the media choice must relate to instructional design as well as to what is available and eminently usable.

ET could be defined in simple terms as the efficient organization of any learning system, adapting or adopting method, processes, and products to serve identified educational goals. This would involve :-

- Systematic identification of the goals of education taking into account nation wide needs higher scalability for instance the system capabilities, and the learners' needs and potential.

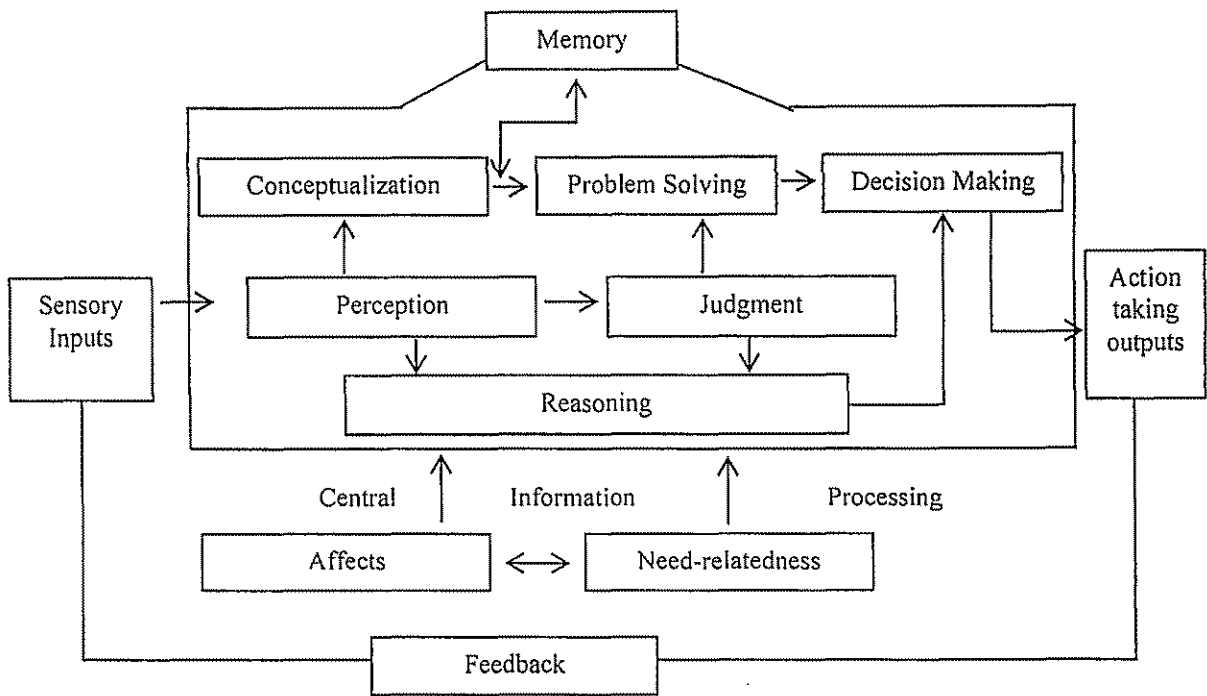
- Recognition of the diversity of learners' needs the contexts in which learning will take place and the range of provision needed to them.
 - Recognition of not only the immediate needs of children but also their future needs in relation to the society for which we are preparing them.
 - Designing, providing for, and enabling appropriate teaching-learning systems that could realize the identified goals.
 - Developing a range of support systems and training, creating the enabling systemic conditions/ materials, reaching these to the school system, and training teachers and students to use them.
 - Research into existing and new techniques, strategies and technologies for solving problems of education, enabling judicious and appropriate application of technology.
 - Appreciation of the role of ET As an agent of change in the classroom, influencing the teacher and the teaching learning process, and its role in systemic issue like reach, equity and quality. This appreciation should not be limited to educators alone, but should extend to planets and administrators as well, since systems both at micro and macro levels will be necessary to meet the current challenges of education.
- ii) Educational Multimedia Use for the Development of Specific Ability Among Children.

We often see a sign in many of the offices of leading corporations, which exhorts the employees toTHINK. This reminder is a small example of how much this activity is prized. Parents and teachers often urges their children to think. The work "think" often denotes different aspects of the cognitive processes. It varies an fantasy sort of thinking to a complex problem solving thinking.

Multimedia programmes develop thinking power among student by providing him different examples and activities in programmes.



By the help of multimedia programmes thinking take place in this way.



This is the process of CIP, that how CIP processed by the help of multimedia programming, on the modes of education at different level.

1.2.4 Need and Significance of the study

The main function of educational research is to improve the educational procedure through the refinement and extension of knowledge. Each research is taken to improve the existing educational process and system.

By this study suitable suggestions can be made for improving the teaching of general science in schools. multimedia teaching procedures can be suggested for effective as well as corrective learning of various important basic skill.

In today's concern teaching is child centered so to minimize the gap between student & teacher multimedia teaching is very much useful. Multimedia improve the teaching learning process & also gives us a chance for the better communication with the child. All the activities in multimedia are in accordance of students need so it make teaching as well as learning very interesting for the child.