Introduction

In the present digital era, the development in several of computer technology has reached beyond imagination and expectation. Even though computer has a lot of applications in various fields one should not forget its application in the field of education. World is progressing rapidly with the help of computers in a very short period, man has brought about his own progress computer has become part of life and its scope is increasing day by day. Computer is a must how one cannot do without computers eg. Banking, Education, Science, Business, Sports, Tourism etc. in all these lines work has become difficult without computers It is very useful and helpful in the teaching and learning process therefore computer have created a revolution in the content of education and in the nature of learning process they have the capability of multiplying the human intellect beyond part conceptions and have tremendous implication in education.

Teachers are highly aware that they need good volume of in-service training, self-learning and home works for fruitful implementation of innovations in instruction. As part of implementation of various educational policies and interventions primary school teachers are receiving a good number of in-service training experiences. Even then, a need for concentrating on quality aspects of in-service training programmes was felt from the opinions of teachers. If the expected needs of teachers are not satisfied through participation in those in-service training programmes, there comes chance for evolution of negative attitude towards in-service training programmes. The fact that the number of needs assessment studies among primary school teachers is found to be less also inspired the investigator to conduct an in-service training needs assessment study among primary school teachers. For, a need assessment survey determines both what teachers want to know and what they need to know. Thus, it was found that survey studies for assessing the level of Instructional Technology Awareness and In-service Training Needs of Primary School Teachers are very few in number and that assessment of the level or index of Instructional Technology Awareness and In-service Training Needs among Primary School Teachers will pave light for planning effective in-service training programmes in future. Teachers and their educational arrangements have to complete with them to impart more knowledge within a short a short time needs new transactional and
communication technology on a large scale. For this computer knowledge is essential for teachers computer Awareness may be stated as knowing about the various fundamental aspects of computers and the basic skills involved in the operations of computers it also includes the application of computer in teaching and learning process.

Teaching seems to be a very simple process but actually it is not. It is really a very complex activity teacher is an very important factor in this process of education. The importance of teachers in 21\textsuperscript{th} century has become all the viable in case of education for everyone. Bearing in mind the changing role of teacher in the context of the 21\textsuperscript{th} century it is very important for teachers to acquire skills of handling computers and its different aspects like multimedia, internet, e-mail etc.

The teachers possess a favorable attitude towards computers they man not be interested in it, which in turn will attest their knowledge off computer and also they will find teaching with help computer difficult which in turn will attest student learning therefore it the teachers have favorable attitude towards computer then there may be a chance for them to be motivated in acquiring Awareness of computer as it is clear that the computer knowledge is very much needed for teachers There are some studies conducted aboard on computer Awareness and also the attitude towards computers.

The central and state governments are taking tremendous efforts to implements the computer application in every sector. State government has introduced computer related courses in the higher secondary school and in other classes also the government has started supplying computer to higher secondary school with suitable software computer has made computer literacy a must in every field all the government officials need have basic knowledge of computer and it has been made computer by government.

Computer Awareness means the knowledge of computer hardware input devices as output devices etc and the skill of using various applications like MS word, Microsoft excel, PowerPoint, Ms point etc. of computer and to test the awareness of usage of computer in education and other fields.

Broadcasting by radio or television conferencing and computer communication all offer means of delivering teaching material to learners without these physical arrangements. Teaching involves more than distribution. Well designed
printed material, cassettes, or broadcasts are designed to promote learning, often by stimulating an active response from the learner. In choosing technologies, therefore, the policy maker has to consider not just how material will be distributed but how they can be designed to facilitate learning and to resolve tensions between these two aims. Efficiency of the computer cannot be overestimated in data processing. It opens up new vistas for educational development and renders multiple services ranging from aid to management and research to the various didactic uses in teaching and training. Computers are greatly used in pedagogic research and experiments. They are found very useful in evaluating and checking school work. They can store and retrieve vast quantities of information about the entire school going population without much time and difficulty. Data profiles of each pupil for the entire school carrier are prepared and maintained easily with the help of the computer plays in important role lifelong education and enables students to acquire knowledge and explore problems. This develops their decision-making facilities and improves conditions for mutual interaction between the pupil and system. Data processing thus brings about variable intellectual revolution. The International Education Commission has aptly observed, “The paramount virtue of the computer is that it release man form the routine of mental labour, freeing the human mind to specialize in operations where it remains irreplaceable, such as posing problems and taking decisions”.

Whether networked or “stand alone”, computers are often merely used in the schools as a tool for reinforcing learning. These type of drill and practice activities area still the dominant uses of computers at the end of the 1990s. there was, however, some movement away from rote learning and towards communication and information processing activities designs to support learning of course content. For example, in 1989, a majority of high school computer coordinators viewed the computer as a tool for academic tasks as opposed to a resource to a learn about computers or a means to improve basic skills. This trend bodes well for GIS activities since they are chiefly concerned with expressing, storing, and analyzing spatial information.

Use of computer a means for programmed Instruction programmed instruction was conceptually introduced by B.F. skinner. Today the computer is used to present subject, often using sound and animation. Then questions are posed to the student and answers lead to other topics of investigation or the repetition of previous one that were not properly learned. Computer as a productivity tool both in content area and area of study for future use this means teaching general software such as word
An innovative application of computer in the teaching and learning process is e-learning. E-learning may be network-based or Internet-based which includes text, video, audio, animation and virtual environments.

- E-learning is learning on Internet time.
- E-learning is the use of network technology to design, deliver, select, administer, and extent learning.

The one use of computer mentioned above that was not seen as a growth area was programming in the school has reached a saturation point. The availability of computers, databases and spread sheet has helped the teachers to improve their efficiency and effectiveness.

Two way communications is also possible, of course, through face to face contact. In making decisions about technologies we need to consider not just those that are mediated but also the role of face to face contact if this is part of the distance education system we are creating. Thus, the planners’ decisions are usually about set of technologies, chosen according to their appropriateness for the subject matter and the audience and their cost.

A Classroom Teacher, writing on a blackboard, and getting questions from students does all three at once. In open and distance learning we may use print to present material, the mail to distribute, it and and face to face tutorial sessions for feedback and dialogue. A variety of off computer-based technologies have been used including the distribution of sample lesson plans on CD-rooms, setting up exchanges by computer conference between teachers ‘colleges, encouraging the interactive use of computer-based learning materials, encouraging the use of web-based materials, and using computer conferencing to encourage discussion among learners. A Range of dedicated website have been created for the professional development of Teachers. Wherever teachers have access to the internet, these sites can increase the exchange of materials and interaction between teachers and direct them to other teacher’s education resources, experts and professional associations.
Multi-faceted roles of today’s teacher

Rich quantities of innovations are being practiced in the current scenario of education. While discussing on the role of today’s teacher, Trilling and Hood (1999) compared the characteristics of learning of the knowledge based society and industrial society. In Industrial age, teacher was a director, and knowledge source while, in Knowledge age teacher is a facilitator, guide, co-learner and consultant. In Industrial age the process of learning was curriculum-directed, time-slotted, rigidly scheduled and fact-based. In Knowledge age, learning changed to a mode of open, flexible, on-demand, student directed, real-world and concrete. Action & reflection, discovery & invention, collaborative, community-focused, open-ended, creative diversity, computer mediated, dynamic multimedia interaction, worldwide unbounded communication, multi-dimensional performance assessment by experts, mentors, peers and self became the main traits of today’s learning and instructional environments. Role of teachers change over time in response to new patterns of educational governance and managements, new kinds of students, new theories of teaching and learning, and the arising new technologies (Chapman & Adams, 2004) Educationists are claiming that, we are on the way with „child centered education”, „learner-oriented instruction”, „participant-approach”, „competency-based instruction”, „brain compatible learning” etc. Still teacher is the prime medium of classroom activities. As innovations and reforms in education occur, the meaning of teacher effectiveness also changes. But, certain basic ingredients of effective teaching still tend to persist, which includes knowledge of substantive curriculum area, pedagogic skills, familiarity with multiple instructional strategies, ability to be reflective, self-critical and motivate students to learn (Chapman and Adams, 2004) While the term „learner-centered” is invoked in many curriculum documents, there is little agreement on its meaning. Learner-centeredness is a concept that cannot be captured in finite, static, and unquestioned definitions (Paris & Combs, 2006) In midst of learner-centered reforms, teacher is still a high-status participant in the classroom interaction process. When the process of instruction get more transformed to learner-centered, teachers are currently faced with a variety of challenges like class size, diversity in student populations, variety of instructional strategies, classroom management problems, social accountability pressures, curriculum changes, and new technologies and the like. The process of instruction is complex and this takes place in two contexts–curricular context and programmatic context-and to be perceived in terms of three phases – pre-
engagement phase, engagement phase and post-engagement phase (Martinez-Pons, 2001) The contexts are so important since they determine the ways in which instruction is planned and carried out. The curricular context of instruction involves the regular school or educational settings and their instructional efforts are part of an on-going curriculum whose activities are repeated cyclically. The programmatic context of instruction involves teaching –learning activities designed to meet some specific organizational goal such as bringing teachers up to date on aspects of their work or to meet some social needs. Whether the context is curricular or programmatic, the instructional endeavor is to be discussed as a three-phase process.

Efforts like learner needs assessment, diagnosis, fixing instructional objectives, task analysis, test development, pre-testing, grouping, instructional module development and it’s debugging are included in the pre-engagement phase of instruction. The engagement phase of instruction covers instructional implementation, module implementation, situational assessment, final adjustments, formative evaluation and corrective activities. Summative evaluation and remediation are the major actions in the post-engagement phase of instruction (Martinez-Pons, 2001) Teachers are expected to answer themselves an expanded set of key questions throughout the three “pre-pro-post” sessions of instruction. Proper planning of instruction, contextualization, natural presentation of the subject matter, rationale for the selected instructional-learning strategies, persistence of motivation among students, group size formation, group dynamics and behavior, assurance of individual performance during group works, appropriate teacher behavior, fulfillment of curricular objectives, proper integration of contents, timing and pacing of instruction-learning, continuous evaluation, comprehensive evaluation, varieties of assessment, classroom management, classroom ecology, instructional flow, etc are major the demands that are being raised before a teacher. That is, the role of a teacher varies among that of a designer, director, event-manager, facilitator, student, researcher, psychologist, philosopher, sociologist, creative artist, etc. Coping with and conveying the technological developments, creating knowledge explosions are other challenges for role diversity of classroom teacher. For implementing ideas like „ transformative learning experiences“ grounded in socio-cultural changes resulting from fusion of digital technologies such as internet, wireless connectivity, digital imaging and virtual classrooms raises need for assimilation of role-diversity on the part of teachers (Pearson and Somekh, 2006) Teachers of the twenty-first century are further expected
to take on expanded roles and responsibilities such as curriculum developers, action researchers, team leaders and staff development facilitators. This multiplicity of roles suggests that the traditional conception of teacher effectiveness has been rendered anachronistic. Recognizing this widened range of professional responsibilities and needs, teachers are to give divergent opportunities for enhancing their individual knowledge and competencies, and should give best support for better conditioning of texture of classroom life. As stated by Dave, *Teachers can act as trail-blazers in the lives of learners and in the process of education for development*. If teachers acquire professional competencies and commitment, and if they are enabled and empowered to perform their multiple tasks in the classroom, school and community in a genuinely professional manner then a chain reaction can begin starting with a sound teacher performance and culminating into high quality learning among increasingly more students in cognitive, affective and psychomotor areas of human development.

**Review of related Literature/ Research:**

*Angeli and Valanides,* (2005) conducted a study to evolve an Instructional Systems Design (ISD) model that was based on an expanded view of Shulman’s concept of pedagogical content knowledge (PCK). The study was conducted among Cyprus preservice elementary teachers who participated in an Instructional Technology course. The main question that was investigated in the study was how to develop elementary teachers’ Information and Communication Technology related Pedagogical Content Knowledge. Totally 312 preservice teachers participated in the study which was designed into three phases. Case-based instruction was applied in the first phase of the design experiment. A new Instructional Systems Design model was developed and assessed in the two other sessions of the design experiment. In the first two phases of the study, teachers were guided to use multimedia-authoring tools, while in the third phase teachers were asked to use a modelling tool. The ISD model was found to be effective. The study constituted a starting point of intensive future research efforts for seeking more culturally bound or situated ISD approaches where the influence of school context and teachers’ epistemological beliefs and experiences are to be more considered in ICT enhanced instruction. The study suggested that teachers are to be made more competent to teach with ICT with more knowledge about different tools and their affordances, specific pedagogies, specific contents, specific learners and in specific contexts.
Al-Bataineh and Brooks, (2003) undergone a historical look at the lessons learned in the twenty years of computer-based technology integration in educational systems in U.S.A. Phases of print automation of the 1980s, a more learner-centered shift in the early to mid 1990s, internet shifts focus to high order thinking in the late 1990s and current challenges were discussed. Vision with support and proactive leadership from educational system, skilled educators in the use of technology in learning, assessment of the effectiveness of technology for learning, technical assistances, ongoing financial supports and policies supporting new learning environments were the themes identified as current needs and challenges.

Baker, (2003) synthesized the reflections on emerging issues related to contemporary technology-enhanced assessment. Linkage to cognitive demands or requirements, methods for attributing validity for various assessment purposes, procedures for generating multiple instances of a task, analytic approaches for providing reports targeted to users, quality control routines to assure content quality, appropriateness to the learner and fairness were recommended as the minimum features that are to be included for technology design and assessment. Placing learning at the heart of the endeavor is to be considered vital in the synthesis of technology and assessment.

Buendia, (2002) examined the manner American primary school teachers deployed Instructional Technologies according to their contextual conditions and institutional systems of knowledge. The theoretical framework firmly identified the curricular initiatives and teachers’ practices as another aspect of Instructional Technology. The study analysed the history of revolution of Instructional Technologies. Instructional Technology within the frame of study was conceptualized as devices, texts or instruments constructed to enable, shape or manage human beings to fulfill particular tasks.

Braund and Reiss, (2006) analysed the problems of science education in schools. The study suggested reformations in the science curriculum, pedagogy and nature of pupil discussions in science instruction. The study criticised that current science education is too routed in the science laboratories and substantially greater use needs to be made ‘out-of-school’ sites for teaching science in schools. The study revealed
the importance teachers’ competency to complement laboratory-based school science teaching by out-of-school science learning that draws on the ‘actual world’ through field trips, the ‘presented world’ in science centres, botanic gardens, zoos and science museums and via the ‘virtual worlds’ that are increasingly available through information and communications technologies.

Singh, B.K. (1988) studied growth and development of technology in education in secondary schools in Bihar’s Monghyr district. The objectives of the study were to study the growth and development of educational technology in the secondary school of Bihar with and investigation of its impact in science. The findings of the study were there is very less use of technology in the secondary schools in Monghyr dist. those secondary school which were using the advance technology were brighter than other schools. There are very few schools where advance technology used while teaching.

Rajseker’s and Vaiyapuri Raja P, (2007) studied knowledge and attitude towards computer in higher secondary school teachers. The objectives were study the level of the computer knowledge of teacher their attitude towards computer and the nature of the relationship existing between the teacher computer knowledge and their attitude towards computer. The findings of the study were teachers are weak in their computer knowledge; there was no significant difference in computer knowledge between the teacher secondary grade teacher and graduate teacher. Also there was no significant difference in computer knowledge. Between the teacher working in government schools and private schools and there was no significant difference in attitude towards computer between teacher working in urban area and rural school.

S.K. Panday studied Teacher attitude towards computer in relation to sex, age and experience. The objectives of the study knew the level teachers attitude towards use of computers in secondary schools of Uttarakhand state. Majors findings of the study were, Teachers above 40 years and having length service more than 20 years have more favorable opinion about computer knowledge but they sue less computer in classroom teaching their counterparts, there was no significant difference between male and female teachers of computer education and also in rural and urban teachers attitude in relation to utility of computer in their classroom teaching.
Sibien, K.K Annaraja P. studied Teachers, Trainees, Computer, Competency enhances their technology use in class room teaching. The objectives of the study were found out the level techno-pedagogical skills. Skills in learning materials instrumental strategy, communication evaluation and guidance of the secondary teachers. Also finding the significant difference between secondary teacher, education student who have attended computer course and who have not attended computer course. Finding of the study were there was significant difference between secondary teacher education students who have attended computer courses in their skill in learning, evaluation and techno-pedagogical skill. While comparing the means source of secondary teachers education student who have attended computer course and who have not attended computer course in their skill in learning secondary teacher education students who have attended computer course are better than those who have not attended computer course in their skill in learning. This may be due the fact that secondary teacher’s education students who have attended computer course have a solid foundation and can work with their previous knowledge and experience. While comparing mean scores of secondary school teacher education student who have attended computer course and who have not attend computer course in their skill in evaluation. Secondary teaches education students who have attended the computer course in the skill in evaluation, secondary teacher education students who attended computer course are better than those who have not attended computer course in their skill in education.

K. Saikumari, studied computer phobia of IX standard students and their attitude educational usage of computer. to investigate the level of computer phobia among IX standard students investigate the computer phobia of IX standard students in terms of locality of the school, age, gender and type of management of school the second objectives was attitude of IX standard students towards computer usage education in terms of a locality of the school, age, gender and types of management of schools not influence the computer phobia of IX standard student and their attitude towards computer usage in education. the investigator also realized that the role of the teachers in significant in helping the students get rid of their computer phobia so the teachers working in urban and rural areas must be given computer literacy to guide their students the teachers working in government so that they can help their students to
develop a positive attitude towards computer learning and usage the government must ensure that all the schools in urban and rural areas have the infrastructure facilities to have a computer lab and well trained teachers that students can methodology in despite their conclusion.

Sangeetha, (2000) collected the opinions of primary school teachers of Kerala towards the use of computers. 300 teachers 41 primary schools of Kannur district participated in the study. Desirable opinions about the academic use of computers were reported from the part of primary school teachers. Emerging need for computer usage among teachers was given as conclusion in the work.

Hennessy, et.al (2005) reported a collaborative programme of projects undertaken by 15 teacher researchers of Cambridge University using various forms of computer-based ICT to support subject teaching and learning. A typology of pro-active and responsive pedagogic strategies for mediating pupil interactions with ICT was identified. The strategies emerging illustrated how teachers structured instructional activities judiciously; supported guided and challenged, encouraged pupil collaboration, experimentation, reflection and analysis; avoided floundering and maintained a focus on subject learning; integrated the use of other resources; and developed information handling skills. The study was drawn on socio-cultural learning theory as a conceptual framework for analysing how teachers can structure classrooms activities and interactions during ‘Technology-integrated Instructional Conversations’. A cross-case analysis was conducted by lesson observations, follow-up teacher interviews and teachers’ research reports.

Hung, (2001) described the dominant schools of thought in relation to learning theories and how computer mediated technologies. The study illustrated how learning theories can be integrated in computer instructional contexts. Behaviorism, cognitivism, constructivism, and social constructivism were discussed in the light of different instructional strategies

Shyni, (2000) analysed the views of secondary and higher secondary school teachers regarding the use of computers in education. 160 secondary school teachers and 155 higher secondary school teachers participated in the study. It was identified both strata of teachers have almost similar views regarding the use of computers in education. The
study emphasised need for encouraging computer education in schools and the need for making teachers competent to cope with recent changes in the field of computer technology.

**Balasubramanian**, (2002) investigated about the need for computer education in teacher training programmes, both pre-and in-service teacher education. The study recommended that all teacher educational institutions and training programmes have to include computers as an integral part of their instructional aids. The study also identified that most private schools were comfortably placed in the accessibility of computers, but the same cannot be said about government schools. The study concluded with an urgency of computer literacy among schoolteachers and also recommended longer training programmes to prepare teachers to develop instructional software for their students.

**Joy and Manickam**, (2002) conducted a study among fifty primary school teachers who were undergoing an in-service teachers' training programme. The major objective of the study was to assess the index of teachers' knowledge in computers and computer assisted instruction awareness. The level of teacher competency of the teachers undergoing in-service training did not shown any change as a result of the in-service training programme. The investigator commented that it may be a reflection of the reliability of the test. Gender difference was also not found in the achievement through in-service training. The study found that the teachers' attitude towards the use of computer became more favourable with the increase in the awareness about use of computers in the process of instruction. The study concluded with a suggestion that the contents that enrich positive attitude towards computer assisted instruction are to be included more in the future in-service training programmes for the teachers.

**Rajagopalan**, (2002) investigated about teaching strategies adopted by schoolteachers and their pupil’s achievement. The study was conducted among 50 secondary school Malayalam teachers and 400 pupils. The study revealed that well experienced teachers especially in government schools were not using preferred teaching strategies for imparting effective attainment of the objectives envisaged through language education. The study indicated about the absence of timely implementation of inservice teacher training programmes that created lack of familiarisation among teachers with effective and new instructional strategies.
Rasku-Puttonen, et al (2002) investigated about the role of teacher in the promotion of successful learning and collaboration in Information and Communication Technology based learning environments. Instructional scaffolding in the technology based learning environments was another key issue in the work. The persistence of important role of teacher even in the individualised and child-centered instructional environments was proven in the study. A need for research and developments for realizing pedagogical innovations was revealed in the conclusions. The study concluded that novel practices in teaching will be challenging in inservice training programmes of teachers adopting technology based learning environments.

Swamy, (2002) reviewed different areas of information technology and its context in the field of instruction. The study suggested that teacher educators and teacher training programmes should recognize the new skills and needs required for today's instruction process, and train teachers to develop those skills. The study concluded that the teacher community must welcome a partnership with new electronic instructional methods. The importance and features of on-line instruction were more discussed in the study.

Usha Devi, (2002) reported an immediate need for orienting the in-service teachers in Information Technology skills. The study also recommended Information Technology as a compulsory content in the preservice teacher education courses. The study identified the areas required in-service training programmes for teachers. Hyper-text, multi-media instructional techniques, computer assisted instruction, internet, intranet, and intelligent tutor system are some of the areas identified, in which in-service teachers training programmes were to be conducted.

Unwin, (2005) explored some of the reasons for the identified gulf between the rhetoric advocating use of ICT in education in Africa and the reality of classroom practices. The study also outlined a possible framework for the successful implementation of teacher training programmes that makes advantageous use of appropriate ICTs. Six fundamental principles of good practice were insisted in the study that is to be addressed for such programmes to be effective. The six principles were a shift from an emphasis on ‘education for ICT’ to the use of ‘ICT for education’, an integration of ICT practice within the whole curriculum, a need for integration between pre-service and in-service teacher training, a need for
development of relevant and locally produced content, a need for appropriate educational partnerships and an emphasis on the development of sustainable costing models. The paper concluded with a framework for action to deliver the very real benefits of ICT for teacher training in African countries.

Andrea, (2004) analysed the history of Information and Communication Technology education in Hungarian public education sector that dates back to the 1970s. In Hungary as well as in most countries that ICT education was introduced as a compulsory school discipline. The study reports that a shift was observed from a technology-centred towards a teaching-learning centred approach. In-service teacher training programmes were introduced in large numbers to satisfy the accelerating needs of schoolteachers in the late 1970s. The study describes a design contest for school computers that was launched by the Hungarian Ministry of Education to equip a large number of schools with affordable and easy to use computers, completely with pedagogically valid educational programmes. An unrealised project was also illustrated in the study that was designed with objectives to give in-service training for schoolteachers of different disciplines to use computers in their preparation and daily teaching practices. The main problem identified for the dissemination of ICT-based instructional methods is the low level ICT competency among teachers. More intensive in-service training programmes on ICT for the schoolteachers were recommended in the study.

Kirkwood and Price, (2005) discussed issues relevant for teachers and instructional designers anticipating using information and communication technologies. The study summarised that although ICTs can enable new forms of teaching and learning to take place, they cannot ensure that effective learning outcomes are achieved. The discussion concluded that it is not technologies, but educational purposes and pedagogy make students how to work with ICT and why it is of benefit them to do so. The importance of appropriate contextual instructional approaches and designs was revealed in this work. Knowledge about students’ use of media as well as their attitudes and experiences can help teachers and instructional designers develop better learning experiences.

Burnett, et al (2006) conducted a study on the transformative influence of new digital technology connections on the practical implications for transforming literacy in primary schools in U.K. Children’s’ digital texts were analysed alongside interview and observational data were used for the study. The study revealed the emerging need for
making primary school teachers to be equipped with latest digital technologies, to promote new literacy practices in the classrooms through production of new kinds of digital texts and new technology to offer children in classrooms, to explore broader notions of literacy, and new forms of communication and learning in primary classrooms. The study also documented the emergence of peer-based learning relationships and changing perceptions of teacher’s role.

Carmichael and Procter, (2006) conducted a study on the use of electronic networking in primary and secondary schools in U.K. The survey was conducted among 250 teachers. The study discovered that while use of IT is a well-established element of classroom practice, teachers made less use of electronic networks. The study made comment that time is needed for in-service teachers to make sense of new practices for themselves. More in-service training to make teachers sense of new practices in ICT for themselves was recommended in the study. The study concluded that there is still much to be done in the area of providing resources, services and online environments, which are supportive of innovation and knowledge creation about teaching and learning.

Chaudhary, (2006) edited and analysed 15 papers of ICT initiatives and quality improvement in Elementary Education in India. The material revealed that teachers could facilitate learning process by building awareness on contextual issues, help children learn concepts, acquire theoretical knowledge about curriculum areas and also provide individualised instruction to learners.

Lee, (2006) conducted a study on online learning in primary schools in Hong Kong. The study was conducted to explore how primary teachers use an online Integrated Learning Environment (ILE) catered for individual learning difficulties. The study recommended that when adopting ICT for teaching and learning in primary school classrooms, teachers should be sufficiently open-minded to explore different approaches and apply adaptation strategies. The study concluded that teachers are to train well to understand the rationale and philosophy for the use of ICT to cater for individual differences.

Passey, (2006) analysed uses of ICT by primary and secondary schools in England. The study identified that the evolved wide diversity in the forms and uses of ICT had created challenges for teachers to select appropriate uses of ICT to support learning most effectively in specific situations. The study identified a clear need from the part of
teachers to know how each form of ICT supports precise aspects of learning in each subject area, topic and activity. Teachers also need to consider the different forms of technological resources that are accessible, how these specifically work within learning environments in classrooms and other settings, and how uses of resources match social, behavioural, emotional and cognitive needs of pupils.

Postholm, (2006) conducted a study on the teacher’s role when pupils work on task using ICT in project works. The study acknowledged ICT and project work were challenging issues for many teachers to deal within the classrooms. The study was conducted in three classrooms in threes schools at the lower secondary school level in Norway. The data were collected through observation, tape recordings, video recordings and logbook entries throughout project periods in the classrooms. The study reported that ICT places great challenges on the teachers and heavy demands on both pre-service and in-service teacher training programmes in Norway. Teachers need to be trained to determine when and why ICT should be used, and also how the equipment should be integrated in proper instructional situations.

Stemler, et al. (2006) proposed seven strategies for teachers for dealing with practical issues of teaching. The study highlighted the importance for in-service training for teachers to have sound practical skills in interacting with students, parents, administrators and other teachers. The study presented a new framework for conceptualizing practical skills in dealing with others that follows directly from Sternberg’s theory of successful intelligence. Comply, consult, confer, avoid, delegate, legislate and retaliate were the seven strategies suggested for teachers to improve their interpersonal skills.

Need of the study
It is felt as the need of the hour for teachers to undergo self-criticism, to introspect regarding the deplorable state of affairs in the field of education. Significance of self-analysis from the part of teachers about their Strength, Weakness, Opportunities and Threats (SWOT) are with an alarming call. If the teachers are provided with necessary skills and competencies and are thus, empowered they can inculcate the skills in other persons and mainly in pupils. Computer has covered all fields today see that in every educational institute, computer use has become unavoidable. But the researcher himself is from countryside it is found that teachers from village have little Awareness of computer, but teachers from cities have good knowledge of computer
and they are making use of it for other things related to education and for teaching and Learning. It was observed by the researcher the difference between the Awareness than a rural teacher or urban teacher has it reality. Researcher studies the teachers’ computer Awareness and their attitude towards computer.

**Significance of the study:**

Teachers will be fairly benefited by this research because teacher will understand the importance of computer use in teaching and learning by this research. In the same way they will understand there level of computer awareness and it adequacy. A principal will know the awareness of the staff and if they are below the expected level he can understands the reasons behind it. This research is helpful for the principal for application of increasing the knowledge of the staff.

Government has undertaken the policy of emotional intellectual physical development/ progress of the students for the different workshops are organized for this also teacher need to have computers awareness for that research will be important.

- **Variables of the Study**
  1. Computer Awareness
  2. Moderator Variables:
     a. Locale
     b. Gender
     c. Experience
     d. Computer
     e. Faculty

**Operational definition –**

*Computer Awareness* - knowing about the various fundamental aspects of computers and the basic skills involve in the operation of computers.

*Secondary School Teacher* - the teacher who teaches Eighth to Ninth and Tenth standard, are secondary school teachers.

**Broad Aim of the study:**

To Study the computer awareness amongst the secondary school teachers of Nasik district in relation to different variables.
**Objectives of the study**:-

1) To study the level of Computer Awareness Secondary School Teachers of urban area.
2) To study the level of Computer Awareness of Secondary School Teachers of rural area.
3) To compare the Computer Awareness amongst secondary school teachers with respect to their locale.
4) To study the level of Computer Awareness of male secondary school teachers.
5) To study the level of Computer Awareness of female secondary school teachers.
6) To compare the Computer Awareness amongst secondary school teachers with respect to their gender.
7) To study the level of Computer Awareness of experienced secondary school teachers.
8) To study the level of computer Awareness of below experience secondary school teachers.
9) To compare the computer Awareness amongst secondary school teachers with respect to their experience.
10) To study the level of computer awareness of MS-CIT secondary school Teachers.
11) To study the level of computer awareness of NON MS-CIT secondary school Teachers.
12) To compare the level of computer awareness of computer with respect to computer literacy secondary school Teachers.
13) To study the level of computer awareness of Arts faculties secondary school Teachers.
14) To study the level of computer awareness of science faculties secondary school Teachers.
15) To compare the level of computer awareness of different faculty secondary school Teachers.

**Hypotheses of the study**-
1) There is no significant difference in the Computer awareness amongst urban and rural Secondary School Teachers.

2) There is no significant difference in the Computer Awareness amongst male and female Secondary School Teacher.

3) There is no significant difference in the computer Awareness amongst Experienced and below experience Secondary School Teacher.

4) There is no significant difference in the computer Awareness amongst MS-CIT and Non MS-CIT Secondary School Teacher.

5) There is no significant difference in the computer Awareness amongst ART and SCIENCE Faculties’ Secondary School Teacher.

Sample:-

There are approximately 600 secondary school in Nasik district. Out of these 600 schools 100 schools which are located in urban area and 100 schools from rural area of Nasik district will be selected as sample for (present) the study.

The technique for selecting the sample will be simple random sampling method.

<table>
<thead>
<tr>
<th>Table -01</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of schools</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total school</th>
<th>Schools in Urban Area</th>
<th>Schools in Rural Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>50</td>
<td>50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Table -02</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of Teacher</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Total school</th>
<th>Teachers in Urban Area</th>
<th>Teachers in Rural Area</th>
</tr>
</thead>
<tbody>
<tr>
<td>600</td>
<td>350</td>
<td>350</td>
</tr>
</tbody>
</table>

Methodology:-
As the researcher wishes to study the Computer Awareness among the Secondary School Teachers from Nasik District hence the study will be done by Descriptive survey method.

**Tools:**

A) Tools for Data Collection –
   1. Primary Data Sheet
   2. Computer Awareness scale- prepared by the researcher.

B) Statistical Technique’s
   1) Descriptive Analysis – mean, medium, mode, standard Deviation, kurtosis, skewness
   2) Inferential Analysis – ‘t’ Test

**Scope and Delimitations of the Study** –

The present study is a humble attempt by the investigator to assess the level of awareness on the different aspects of Instructional Technology among secondary school teachers. This research will include secondary school teacher from Nasik district, primary school teachers and teachers from the colleges, Higher and Technical education teachers will be excluded. This research will include only secondary School teachers from Marathi medium in Nasik district and the English, Urdu, Gujrathi; medium school’s secondary school teachers will be excluded. This research will include only secondary school teachers in Nasik district and the non teaching staff and other staff will be excluded. This research will include only Nasik district secondary school teachers and teachers from rest of the district will be excluded. This research will include only Computer Awareness of secondary school teachers Nasik district and the other computer related knowledge and skill will not be included in the present study. This research will include only aided secondary school teachers in Nasik district and the un aided secondary school teachers in Nasik district will be excluded.

**Bibliography**