CHAPTER-V
SUMMARY, RECOMMENDATIONS AND CONCLUSIONS

Introduction
This chapter consists of summary of the study, practical challenges, recommendations, conclusion, and denotes implications.

Summary
This thesis titled “Status of ICT utilization in Secondary schools: Practical challenges and future recommendations. A case of North coastal districts in Andhra Pradesh” is divided into five chapters namely Introduction, Review of related literature, Research design, Analysis and interpretation, Summary, recommendations and conclusions.

The first chapter introduction consists of the brief information regarding the various parameters existed in the study. Statement of the problem, title of the study, significance of the study, objectives of the study, Hypothesis of the study, scope of the study, strengths and limitations of the study and organization of the study.


The significance of this research stems from its contribution of knowledge, particularly its generation of useful information to support future development in the use of computers in educational system in north costal districts in Andhra Pradesh. After analyzing the data, it is hoped that the results of this study will provide north coastal educators with new understandings of, and insights into secondary school teachers usage of ICT in the classroom and their perceptions of it, indicate factors influencing teacher ICT use and identify enablers and obstacles of full integration of ICT in the field of education. In addition, presenting teachers views on current ICT policy and its influence on their teaching style will enable policy makers to make decisions based on informed judgments rather than
intuition. The study provides state government of secondary education in Andhra Pradesh with new information relating to issues which need to be considered in addressing future educating policies. Lead to further in-depth research on teachers’ uses and perceptions of ICT. Give insight into teacher’s views on probable/preferable future utilization of ICT in the teaching and learning process. This will inform policy makers about the extent of their awareness of such utilization and their expectations of new policies, reforms or initiatives launched by Government of Andhra Pradesh of Secondary Education. Open the way for research on the future of education in the Andhra Pradesh context.

The study was undertaken with the following objectives

1. To find out the usage of ICT by teachers during the teaching and learning Process.
2. To identify the barriers and supporting features on use of ICT
3. To determine the key areas of policies and awareness in education with special reference to Andhra Pradesh State.
4. To find out the views of teachers towards the use of ICT for classroom transaction.
5. To analyze the present status of use of ICT at secondary school level.
6. To explore the feeling of teachers towards the possibility of future expectations in educational practice.
7. To know the difference of ICT utilization between government and private teacher within three districts (Srikakulam, Vizianagaram and Visakhapatnam).

The study is considered to investigate only secondary school teachers working in government and private schools, rural and urban schools towards using ICT. The study is limited to the secondary school teachers of North coastal districts (Srikakulam, Vizianagaram and Visakhapatnam) in Andhra Pradesh.

The second chapter review of related literature consists of the literature of various studies which are related to this topic. These reviews were collected by the investigator from various journals and through internet. The reviews were
categorized into different sections like Teachers use of ICT, Barriers and supporting features of ICT, Feeling towards use of ICT, Policy and ICT, Future Education and ICT and Integration of ICT in Secondary Education.

The third chapter methodology is related to the area of study, operational definitions of key terms, population and sample of the study, the method of study, sampling technique, the research tool used, various statistical techniques used in the analysis of the data and strategy of scoring the data.

The independent variables taken for the Study are: Management: Government or Private Secondary school teachers; Locality: Rural or Urban Secondary school teachers; Gender: Male or Female Secondary school teachers; Experience: Secondary school teachers experienced above 10 years and below 10 years; Age: Secondary school teachers aged above 40 years and below 40 years; Qualification: Secondary school teachers with Under Graduate and Post – Graduate degrees and Secondary school teachers with qualification B. Ed and M. Ed; Teaching Subject: Telugu, English, Mathematics, Science, Social Studies and Hindi; Medium of Teaching: English or Telugu as medium of instruction; Districts: The Secondary school teachers are from Visakhapatnam, Vizianagaram or Srikakulam districts.

In the geographical area selected for the study i.e., North coastal districts covering Vishakhapatnam, Vizianagaram and Srikakulam 10 Mandals from each district were selected consisting 5 Mandals from rural and 5 Mandals from urban background. 2 schools from government and 2 from private management from each mandal were selected. 5 teachers from each school were selected for the sample. By this process the total number of teachers selected for sample is 600. The mandals, schools and teachers are chosen using stratified random sampling method.

Sample comprising 600 teachers was taken from three districts Viz., Srikakulam, Vizianagaram and Vishakhapatnam using non proportionate stratified random sampling method. 10 mandals from each district were selected for sampling in which 5 mandals are from rural and remaining 5 mandals are from
urban setting. 4 schools from each mandal were selected using random sampling method. Five teachers from each school were selected randomly. The details of the available schools in the selected geographical area provided with ICT facilities.

The questionnaire used in this study was a self-administered questionnaire which was the modified version of the questionnaire used in the Doctoral thesis “Education Policy in Saudi Arabia and its Relation to Secondary School Teachers ICT Use, Perceptions, and Views of the Future of ICT in Education”, submitted by Afnan A. Oyaid under the supervision of Patrick Dillon and Penni Tearle to University of Exeter. The questionnaire was carefully reviewed and finalized in terms of both content and style. The validity of the questionnaire was checked by the concerned experts in the field and reliability of the final questionnaire used for the data collection is found to be 0.78.

The questionnaire was divided into two parts. Part-A: consists of items relating to demographical variables of the study and Part-B: consists of five sections with different statements such as 1) Teacher’s use of ICT; 2) Barriers and supporting features; 3) Feeling towards ICT; 4) Policy and ICT and 5) Future education and ICT. This scale is developed by using likert 5 point scale as strongly Agree (SA), Agree (A), Neutral (N), Disagree (D) and Strongly Disagree (SD). The respondent was asked to read each statement carefully and choose one out of the five options by keeping a tick mark in the box.

The researcher personally visited the government and private secondary schools and conducted pilot study with the questionnaire consisting of 23 questions (115 statements) relating to the current study. 113 statements were accepted and approved for administering among the final sample. This pre-test helped the investigator to improve the effectiveness of the tool of the study.

The investigator used t-test to test the significant difference between two means and ANOVA to test the significance of difference among various groups in different variables. Correlation is used for studying the relationship of various variables.
The fourth chapter provides analysis and interpretation of the data collected, tabulation of data and the interpretation of the various statistical results. Findings and discussion was given at the end of this chapter.

The fifth chapter findings and conclusions furnish the results obtained by the various interpretations. Interpretations are given according to the hypothesis considered. Implications of the study were provided. Suggestions for the further study are also given in this chapter.

At the end in Appendix the tools used for the study is appended. In bibliography various books and journals that are referred are mentioned.

**Practical Challenges**

- As per the government policies to improve the quality of education, financial aids were given to various schools in each district including agencies. But no survey was done and no verification made by government teams to know whether technical equipment reached the schools or not.
- It was found that there are schools after receiving technical equipment also not used equipment properly due to negligency and irresponsibility equipment was not fitted and not given to reach target fixed by the government.
- It was found that lack of training and lack of technical knowledge making users difficult to make use of the given equipment and thereby causing drastic down fall in the quality education.
- In various government schools it was observed that no period was allotted for teaching computer education. Some head masters of the schools giving least priority to the computer education and keeping ICT in the last in comparison of other subjects.
- The basic problem was found that head of institution does not know how to make use of computer technology for making understanding the other subjects. They don’t know making use of the tools for teaching different subjects.
It is clear in different visits that head masters of the schools still showing passion towards traditional education methods thereby not showing any interest to ICT utilization.

There is no observation from the government officials how the computer education was implemented in schools. No verification was made on syllabus framed for teaching.

District education authorities showing negligence in visiting schools to get the draw backs and collecting feed back about ICT utilization.

For observation of ICT utilization, government has decided to recruit additional staff specifically observing infrastructure and syllabus and results. But the decision is still not solidified.

It was found that lack of internet facility bringing huge communication gap and becoming barrier for ICT implementation.

Reputed agencies which undertaken the responsibilities of creating infrastructure in schools have to train at least five teachers including head master every year. But this was not implemented by the agencies and no control and no punishment from the government authorities.

Keeping salaries in mind government is coming up with new policies that will minimize computer staff. If it happens it gives big problem to implementation of ICT policy.

**Recommendations**

In view of the findings derived from this study and the conclusions arrive from them, the following recommendations for policy and practice are presented. They are mainly related to strategies that can be implemented by policy makers to ensure the success of ICT usage in education.

- The Government of Andhra Pradesh combine its efforts and resources to achieve maximum results by appointing one governmental agency to be responsible for ICT policy formulation, implementation, and evaluation, instead of scattering resources and efforts as is currently happening between several agencies.
The government may use a range of methods to encourage teachers to use ICT in their teaching to ensure equal learning opportunities for all students.

The government should give schools more authority and freedom to manage and run themselves and that includes financial matters.

This study identified a need for more training opportunities. Hence, the Government of Andhra Pradesh should ensure that all teachers receive adequate training. Training should not merely focus on basic ICT skills but should also present methods for integrating ICT in teaching and learning. In addition, training should be in the form of continuous professional development courses with flexible training hours as well as in school training.

The government should make use of ICT teachers in schools and assign teacher training responsibilities to them. ICT teachers should therefore be offered school training courses that are especially tailored to meet the needs of the school and its teachers. Teachers should also receive ongoing training as they master previously learned skills and will therefore feel more confident. Through school training ICT teachers can ensure that teachers are practicing what they have learned during training courses and can offer advice to teachers on how to implement and integrate ICT in their teaching.

In this study, time constraints were considered a major hindrance to ICT use, therefore, policy makers in the Government of Andhra Pradesh provide additional planning time for teachers to experiment with their new ICT skills, design methods to integrate ICT in their teaching, and prepare materials for use during lessons. The additional time can be generated from decreasing the managerial workload of teachers to release more time for learning, training, and planning ICT use in teaching.

The availability of reliable maintenance and technical support was considered an important supporting factor and its absence was regarded as a hindrance to ICT use. To promote more ICT usage, the government should provide locally based and in school maintenance and technical support to
assure teachers during their lessons that their flow will not be interrupted when a technical problem arises.

- Training and technical support issues can be resolved by decentralizing the process of teacher training. By preparing ICT teachers in each school with suitable and required skills to train and support their colleagues it is likely that more teachers will be committed to that sort of training as a result of its convenience and long run. Moreover, school management will be more cooperative in terms of releasing time for ICT teachers to attend training courses run by the government during school days, since it is easier to reallocate a few ICT lessons than rescheduling the whole timetable due to the number of subject teachers attending these training courses.

- Teachers expressed their need for professionally developed software and programs in the Telugu language. Government policy makers should spare no effort or time to address this issue by allocating adequate funding for the creation and development of software that is suitable for the Telugu culture and most importantly, fulfills the aims and objectives of the curriculum.

- School ICT resources should be enriched with specifically designed software that suits the local culture and identity. The software should be in standard Telugu language and based on the government national curriculum. It is important to ensure that is based on the curriculum and shares its general guidelines but is not a replicate of it. It should also take into consideration cultural issues, and such as dressing characters in traditional clothes.

- North coastal educational practice has for a long time been based on instruction and memorization and students rarely practice high order thinking skills based on query, analysis, and synthesis of new information. It is therefore recommended that software developers take this into consideration and ensure concepts are explained using multiple examples to widen student’s horizons and encourage them to think freely.

- Research studies often generate issues that are of further interest to researchers. As a result of the present study further studies can build on its
results to enrich existing knowledge in the area of ICT, and ideas for further research have also emerged. It is clear from this research and others that the use of ICT in education is developing rapidly. The research approach to this development needs to be expanded. A study using questionnaire could provide deeper insight into teachers’ usage of ICT in teaching as well as obtain first hand information regarding factors supporting and hindering their usage and evaluate the extent of their influence on teachers ICT use. Moreover, I personally believe in the importance of interviewing policy makers to investigate their views on the current status of ICT use in secondary schools and procedures taken to promote supporting factors and reduce the effect of hindrances. Comparing their vision of the future of education with those of teachers would reveal interesting comparisons and assist in bridging the gap between policies and preferable futures.

- This study was conducted in the area of north coastal districts of Andhra Pradesh. When conducting a study like the present one, rural and urban areas and all social classes could be included to confirm its findings and provide a fuller picture of teacher’s current ICT use, perceptions and views.
- The researcher hopes that this study will encourage other researchers to conduct follow-up research in the field of ICT in education. Teacher ICT usage is still in its early stages of implementation and further research should therefore be encouraged and welcomed.
- There is a need to update the course component in computer education in secondary teacher education and motivate faculty of all subjects’ teachers at every level to upgrade their knowledge and skills of using the computers in secondary education.
- Information and Communication Technology can be included as a core subject at B.Ed and M.Ed courses. The curriculum designers should integrate ICT as one of the units in each subject which will help the teachers to develop learning materials for each subject.
- Secondary school teachers should come forward and try to adopt and accommodate Information and Communication Technology in their
professional life. It will improve the quality of education. The government and management must support them by giving financial assistance to buy information technology equipment. The education department should conduct workshops and training in the field of ICT in order to prepare the secondary school teachers as digital engineers.

- The 21st century is knowledge based technology–driven and fast changing society. So in-service training to all teachers and teacher educators in the training colleges should be organized in the content periodically at least once in three years.

- Regular and simple research projects should be undertaken by every training institute at various levels. Professional Indian teachers need to be fully equipped with rigorous intellectual and moral qualities and should spread our culture and value system all over the globe. Accordingly they should be trained and a conscious effort needs to be made to guard against the invasion of cultural imperialism.

- Digital learning environment in the form of model or ICT learning platform should be offered to teachers to distinguish different components of learning environment and their interdependency.

- Diagnosis and remediation is a basic need of curriculum transaction. Teachers could utilize computer technology in day to day remedial instruction. This will not only help to enhance the instructional process but will also save their time and energy.

- Design instructional materials that support teachers’ use of the ICT tools for collaboration. The instruction could include streaming video instructions using serene capture tools to teach hands on skills. Video, e-mail could be used as short verbal descriptions and visual of directions and supplementary information.

- Explore ways that reduce the language barrier between the teachers. Use simple English to exchange options. Language barriers cannot be resolved in a short period of time but it is important to use simple expressions, visual support, various digital media, and translation programs, these can facilitate
communication and the exchange of ideas. In future studies, pair participants who are technologically and linguistically savvy to facilitate technology literacy, language proficiency and mentor others who have little confidence with technology or with a second language.

- Establish partnerships with countries or cities that have similar technology infrastructure and resources. Immediate interaction or fast feedback it is the key to the success of a technology community. The lack of appropriate support (hardware, software, training) may hinder the utilize and put off teachers interest and momentum.

- Advocate for teacher education programs to introduce and infuse ICTs in the curriculum to prepare teachers for the 21st century by adding a global dimension to the teacher’s professional development. Teachers should be equipped with ICT skills and have positive attitudes for incorporating globalization into their classroom.

- A separate committee may be formulated to promote education/ICTs such as digital libraries, scholarly search sites, encyclopedias, manufacturing/design tools, programming languages, course management systems, learning management systems, web development tools, satellite imagery tools etc., in order to overcome deficiencies in the use of utilization of ICT tools. To meet 75 percent ICT use and the goal that school personnel should rely 75 percent on ICT, the authorities should take the right measures at the grass root level in order to increase the confidence level of secondary school teachers in ICT use.

- Access to resources might be available, but teachers cannot use ICT in the classroom because it may be difficult for them to operate ICT tools. Thus teachers always need technical assistance because this assistance may provide them with up-to-date equipment in the new world of technology. Technical support helps in training and training takes time. Together they allow access to ICT resources and thus help the successful integration of technology in the teaching process.
The improvement of ICT skills also requires that teachers have time available. Teachers whose schools give them time to develop their skills can be more creative than teachers who do not have sufficient time. In order to achieve sufficient competence in using ICT effectively in education, a teacher also needs professional development.

Schools need to provide training courses for teachers to gain experience in dealing with the new devices, modern technologies, and new pedagogical approaches. Technical support needs to be provided in schools. Additionally, schools must provide teachers with the necessary ICT resources including hardware and software. It is important for schools to cooperate with teachers by providing sufficient time to implement new technologies in the classroom. For example, a school can reduce the teacher’s number of lessons or increase the daily lesson length.

Teachers also need to engage with this implementation. Teachers should take advantage of ICT resources offered at schools. They need to be prepared well before joining the teaching profession. Where training is absent, teachers can prepare themselves by enrolling in private sessions or by self-training. They should be open minded towards new approaches of teaching. Where support is lacking, they need to find ways to be able to solve problems involving their use of ICT in schools. Finally, teachers should acquire skills of self-organization which will help them a great deal in conducting their classes when using ICT.

This study proposed that a state wide website namely, the e-Block board, be introduced to all teachers in order to extend the use of ICT among teachers. The e-Block board can be hosted by a leading or third party where all teachers would be given an account to access to. With e-Block board, teachers will be able to upload teaching materials, record grades, and attendance, develop online assessments, and make announcements. Teachers in the same subject can be enrolled under one subject code to allow them to share information and materials, thus creating collaborations among schools. Furthermore, school principals and board of directors can
also track teacher’s works at any time, any where. Teachers can access e-Block board at any where and any time, too. Any announcements made can reach both schools and teachers efficiently. One most important fact is that all teachers can go electronic in this digital age, where materials can be produced, updated and replicated easily.

More specifically, the e-Black board can be designed to display various sections, e.g. syllabus and curriculum, lesson plans, teaching materials, discussion forum, question bank, research articles communication, announcement, and external educational links. Sharing of resources, and expertise on the e-Blackboard means less duplication of effort, e.g. in the preparation of lesson plans and worksheets. Furthermore, discussion on the forum provides better networking opportunities to teachers which mean greater social contact and support. By sharing teaching and related material, teachers would be able to collect more information than it is otherwise possible. Additional information obtained enable teachers to enrich their teaching, hence improving the quality of the lessons presented. Announcements, notices and exchange of messages posted on the e-Blackboard can take place immediately at a minimal cost. External educational links can also be added to allow teachers to share on-line interactive or multimedia educational websites in order to enhance teaching and learning. Additionally question banks can be utilized to include remedial or enrichment exercises from different sources to meet the varying needs of students. In short, sharing of resources and good practice on the e-Blackboard will greatly promote communication and collaboration among teachers. On top of this, e-Block board can be configured to enable parents to remotely access their children’s school records to keep track of their progress. Parents and the community can encourage teachers ICT use by sponsoring talks organizing national seminar for teachers to present and discuss their thoughts. To promote rapport between teachers- parents. Additional parent link can be added to foster mutual support and shaping the overall character of ICT in teaching and learning. However to develop a
successful e- Block board sit for teachers ,critical security policies covering authentication and passwords, backup procedures, installation of firewalls, and use of licensed software have to be in place beforehand.

- ICT policy makers need to realize that teachers should not be excluded from government policy planning when considering future educational ICT use. Thus, teachers should be involved and be familiar with school level policies. So the essential role of teacher ICT motivation should be important.

The following are the ways in which teachers think they can get more involved with ICT decisions within their school and district.

There is tremendous potential for broad ranging improvements across many sectors of education through the use of ICT, the road will certainly not be easy. It will take a continued commitment from all teachers involved to make any kind of substantial and sustainable change. It was assumed that the following recommendations, intended for government involved in bringing ICT in around the world, will provide a roadmap for long term success in bringing ICT to children around the state. A key to success is to adopt a comprehensive, end-to-end, systematic approach, with a phased and learn-as-you-go implementation that can be adjusted to adapt to the specific needs and a changing environment.

For Access

Special consideration should be given to ICT connectivity and accessibility for educational purposes. Bandwidth and spectrum of radio and television wavelengths should be allocated for education. Planning for connectivity infrastructure and regulations should promote and facilitate educational use of ICT. The trends towards convergence and new mobile platforms for internet-connectivity need to be fully exploited through innovative policies and partnerships that can help lower cost and expand access. Central and regional digital libraries and resource centers should be developed which can serve institutions in their respective regions. Access to international library resources,
research databases, and journals should be arranged for the regional resource centers on behalf of institutions in the region.

Regional networks of collaboration among states where language and cultural context are similar could serve as a platform to promote educational quality and equality in an effort to bridge the digital divide. Greater exchange and collaboration in the production and management of educational resources would lower expenses in the development of materials as well as increase the amount of educational content available to teachers and students across the region. Public and Private sector education managements must continue to explore the applications of mobile technology in the education sector. It is essential that the ongoing proliferation of ICT devices throughout the developing state collaborates with the education sector to effectively put to good use of the computers that so many young students in developing countries have today.

For Teachers

It is necessary to focus on training teachers and instructors to use ICT to develop their own teaching support materials. This approach assures ownership by teachers and instructors and enhances the usability of products. Many projects still focus on using materials for teachers and students that have been developed externally. However, such materials often fall short of providing appropriate or relevant content for the local situation. Teachers should work together with both public and private sectors establish networks that support them in their transition to ICT-based education. Online knowledge sharing networks to facilitate this process need to be established for use by teachers at all levels.

For Cost

Any initiative, be it from government, private sector or civil society, should make lobbying for more investments in computers a priority. Insufficient access to computers is one of the main obstacles in ICT for education programs. This is particularly relevant for educational institutions located in rural areas where the school or training institution is the only access point for computers. Although this
will require massive investments in the infrastructure, it is nevertheless essential in order to guarantee equal access and overcome the digital divide.

International agencies such as the UNDP, the World Bank, among others, should work together along with the local governments of grant-receiving countries to establish a global framework to deal with emerging issues of the digital divide due to the new internet economy. IT companies from developed countries such as the U.S., should work with local organizations, including schools, universities, government agencies, community service organizations, nonprofits, and small businesses, to implement and train local people in new technologies, and help in implementation through innovative partnerships that can harness complementary resources and technology solutions to overcome obstacles.

**For Government and Policy Implementation**

Sustainable partnerships between the government, private sector and civil society must be built to offset costs and mitigate the complexities of the integration of ICT in secondary education. Good will, dedication and flexibility are necessary from all partners to ensure agreement and progress. Due to high costs, investment made must be strategic after careful planning, finding creative ways of financing, and creating networks and synergies.

ICT & national policies need to be aligned with policies on education. Though private institutions and civil society can implement their own programs, they will not be sustainable without the support of the national government. It seems, thus far in the research, that for ICT to be effective in education, ICT programs require the support of the national government.

A coherent national policy on ICT in education is a necessity in order for successful ICT integration and capacity building. Governments must demonstrate political will and must champion the integration of ICTs to improve education and training in line with national development goals and frameworks. Government involvement is critical to source additional investments in ICT infrastructure, to
integrate ICT in the curriculum, and to facilitate the widespread diffusion of materials.

Government may consider re-evaluating their licensing policies and initiate regulatory frameworks conducive to more cost-effective and enhanced choices for connection. A fair, competitive market can reduce costs and provide more efficient services. By providing incentives to private sector investment, affordable internet connectivity would be possible in rural areas and other isolated regions.

In cities where government capacity is weak, increased efforts are needed from all stakeholders to curb corruption and increase the nation’s capacity, accountability and transparency. With the misappropriation of funds, any limited resources that may be earmarked to support ICT in education may never be allocated to the intended efforts.

For Monitoring and Evaluation

Teachers working on ICT implementation at all levels must closely monitor the progress of their teaching to ensure that they are progressing effectively.

- Provide suggestion box and recommendation to be read by principals involved with ICT decisions proper follow up actions.
- Questions and answers about ICTs through e-mails
- Discussion through school website
- Organize staff development programs regularly to share knowledge and skills on ICT
- Conduct monthly meetings on discussions regarding ICT use
- Teachers cooperate among themselves, within school and district, and always meet to discuss.
- The teachers who integrate ICTs in their subjects should be supported (i.e., through incentive payments)
- Every classroom should have at least one computer with internet and an LCD projector.
- Course content should be redesigned to acquire more benefit from ICT.
Every ICT related course should be practice-oriented

ICT-related courses should be integrated in teaching practical courses.

Teachers should be aware of the benefits of ICTs.

**Suggestions for further Research**

The present study concentrated only on secondary level, the same aspects can be investigated at the primary and higher level also. Following are some of the areas related to the present research where the studies are less and results may be added to the existing system of knowledge.

- Perceptions of under graduate students on relationship between information literacy and institutional climate
- Impact of Education and ICT on gender relations in north coastal districts
- Relative effectiveness of computer based multimedia learning packages on performance and behavioral outcomes of students of different age groups in north coastal districts
- Factors influencing integration of ICT in teaching learning process at tertiary level
- Role of ICT in effective implementation of Right to education in north coastal districts
- Professional competency and ICT education at higher education level

**Conclusion**

ICT plan needs to identify the services and remove any skepticism regarding the plan. Providing the equipment, software and training will launch the program, but for it to be successful, it must provide for ongoing and long term support of technology system. The secondary school teachers also provide leadership in determining how the new technologies can best be used in the context of the culture, needs, and economic conditions within the country. Teachers have to be equipped with the skills and abilities from time to time handle the latest technology as the quality and competence of teachers affect instruction with a strong impact on student learning. We have to change the mindset of people
by educating them about ICT; active interaction by the government at international level is essential to formulate rule, for information technology, which will be conducive to a positive influence and lead to a sustainable course of action in this direction.

ICT helps in the professional development of teaching and learning and individuals involved in the programs of teacher education. It can be infused in the learning process so as to acquire the knowledge and skill efficiently. ICT provides access to resources so that teachers can apply new knowledge and skills they have learnt. Communication technology helps to develop the capacity of the teacher at the same time and can strengthen the capacity of teacher which is the fundamental requirement of effective transactional strategy.

The proliferation of technologies has complicated the teaching learning process and finding the best ways of integrating technology into classroom practice is one of the challenges the 21st century teachers face. Effectively integrating ICT into learning system is much more complicated than providing computers securing a connection to the internet. It is a fact that teachers play an important role to deal with the current demands of society and economy. They should model the new pedagogies and tools for learning with the aim of enhancing the teaching learning process. Moreover, teacher education institutions and programmes must help teachers to understand how the new technologies can best be used in the context of the culture, needs, and economic conditions of their country. Hence, building the capacity of teachers in the utilization of ICT for education requires long term continuous development of the lead trainers, sharing of knowledge among teachers, partnerships and collaboration among educators and organizations, and support from principals and administrators. These factors must be available in order to create changes in the classroom. Therefore both teachers and trainers require ongoing support and opportunities to experiment with new skills and strategies over time.