

## Consideration of the evolution of the teaching profession and the use of ICT in the twenty-first century

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### ABSTRACT

Information and communication technology (ICT) is a field of science, technology, engineering, and management that is used to manage information, apply it, and work in conjunction with social, economic, and cultural issues (UNESCO, 2002). ICT is a part of each of our everyday lives in the twenty-first century and has an impact on society as a whole. ICT is now advancing our educational system. ICT is extensively connected to teachers, students, administrative personnel, and everyone else involved in education or the educational system. ICT is utilized by teachers to make the teaching and learning process more engaging and well-liked. Technology is also utilized to support teachers' professional growth. A capable and effective teacher is constantly looking to improve his or her methods of instruction and student presentations. The purpose of the study was to find out the role of ICT on Teaching Professional Development in this 21s. This present study is based on secondary sources like books, Articles, Journals, Thesis, University News, websites etc. The study was qualitative in approach. ICT helps teachers in preparation for new teaching techniques. In order to introduce ICT, different methods and strategies are applied in teaching learning process, different tools are used such as word processing, database, Spreadsheet etc. Which are helps teachers to be a new trend teacher. This will help teachers to know integrated technology with classroom teaching in this present situation. This paper has not covered any statistical analysis on role of ICT in 21<sup>st</sup> Century's Teaching Professional Development however further in-depth study with statistical research may also be undertaken.

**Key words:** ICT, Technology, Teacher, Student, Teaching Profession, Teaching-Learning Process

### INTRODUCTION

ICT is a significant concern in many areas of education, especially teaching, in the twenty-first century. This is because technology has become the knowledge transfer material in most countries. ICT stands for Information and Communication Technologies. The way people think, work, and live today has been completely altered by the innovations and transformation of our society brought about by technology integration (Grabe, 2007). This means that all educational institutions that are tasked with educating students for "a knowledge society" must take into account integrating ICT into their curricula (Ghavifekr, Afshari & Amla Salleh, 2012).

The use of computer-based communication to manage everyday classroom instruction is known as information, communication, and technology (ICT) integration in education. In conjunction with preparing students for the current digital period, teachers are seen as the key players in using ICT in their daily classrooms. This is due to the capability of ICT in providing dynamic and proactive teaching-learning environment (Arnseth & Hatlevik, 2012). While, the aim of ICT integration is to improve and increase the quality, accessibility and cost-efficiency of the delivery of instruction to students, it also refers to benefits from networking with the learning communities to face the challenges of current globalization (Albirini, 2006, p.6). Process of receiving ICT education is not a single step, but it is ongoing and continuous steps that fully support teaching and learning and information resources (Young, 2003).

ICT are used by key persons, known as teachers, in educational setting in a productive way in order to get the maximum benefits for their students and integrate ICT into the curriculum and its implementation (Usun, 2009).

Therefore, it can be accepted that teachers have the vital role to improve the teaching and learning processes at schools, colleges, and universities to achieve their goals on a large scale.

### CONCEPT OF ICT

ICT stands for Information and Communication Technology. According to United Nations Development Program (UNDP) definition, ICTs' are basically information handling tools, such as a varied set of goods, applications, and services that are used to produce, store, process, distribute and exchange information. ICT includes both old and new tools. Old ICT tools mainly include radio, TV and telephone. New ICT tools mainly include computers, satellite, wireless technology and the internet.

ICTs not only refer to the latest computer and the internet based technologies, but also refer to the simple audio-visual aids, such as transparencies, slides, cassette and video recorders, radio, television and film.

These conventional and more familiar technologies are referred under the collective heading of analogue media, while the newer computer and internet-based technologies are called the digital media. The differentiation between the old ICT and new ICT is subjective to some extent.

### TEACHING AS A PROFESSION:

Teaching as a profession is that teaching is about inspiring and motivating students to realize and exceed their potentials. The greatest teachers of all time have devoted their life in inspiring and empowering their students to achieve great things and be a good human being.

### FIVE CORE PROPOSITIONS ON PROFESSIONALISM IN TEACHING:

The National Board for professional Teaching Standards, USA and other eminent experts seeks to identify and recognize teachers who effectively enhance student learning and demonstrate the high level of knowledge, skills, abilities and commitments reflected in the following five core propositions.

- a) Teachers are committed to students and their life-long learning to satisfy themselves and other stakeholders.
- b) Teachers understand the subject they teach and how to teach those subjects to students for accomplishment of their learning objectives.
- c) Teachers are responsible for managing and monitoring student learning.
- d) Teachers think systematically about their practice and learn from experience.
- e) Teachers are lifelong learners and members of learning communities.

### PROFESSIONAL ETHICS FOR TEACHERS:

Teachers help Students in their academic as well as teach valuable life lessons by setting a positive example. As a role model to students, teachers must follow a professional code of ethics. In one-word Professional code of ethics for teachers means responsibilities of teachers on students as well as on profession, which are as follows in brief--

#### a) Towards Students:

- i) Teachers responsibilities is to guide or to reach any students in class without any charge
- ii) A Teacher must have a good speaking power and also have a proper way of behavior and dress.
- iii) A Teacher can improve and upgrade his professionalism by means of study, research and attending professional course, seminar, matting, workshop etc.

#### b) Towards parents:

- i) A Teacher must establish a good relationship and cooperation with parents.
- ii) A Teacher avoids parent's social and economic status for personal gain.
- iii) Supply all education and school related information of each student to their parents as confidential.

- c) Towards society and nation:
  - i) To avoid any teaching which can bring harm to the pupils, society or nation or is inappropriate to pupils national principle.
  - ii) To respect the school and to fulfil all the responsibilities as good citizen.
  - iii) To provide positive contribution in to the upgrade the standard of living including moral, cultural and educational aspects of society.
- d) Towards colleagues and teaching profession:
  - i) A Teacher cannot involve in any activity which will affect the efficiency performance of the teachers as a whole.
  - ii) Strive hard to maintain the good image of all colleague
  - iii) Always caution in any action that might tarnish the good reputation of the teaching profession.
  - iv) Always join in the teacher organization as a member.

This above description ensures that students receive a fair, honest and uncompromising education from an ethical teacher. A professional code of ethics outlines teacher's main responsibilities to their students as well as their profession and defines their role in students live.

### OBJECTIVES

The objectives for this research study are-

To find out the role of ICT on Teaching Profession.

To find out the role of ICT on Teaching Professional Development in this 21<sup>st</sup> century.

### LITERATURE REVIEW

Qasem Arwa Ahmed Abdo & G. Viswanathappa (2016), indicates on their study "Teacher Perceptions towards ICT Integration: Professional Development through Blended Learning" that the groups were equivalent in their perception or, to put it differently, that the experiment and control groups were similar in their perception. Also the researcher indicated that teacher perceptions towards ICT integration in e-course design were above average in both groups. Since the teachers had already acquired the necessary skills for effective usage and implementation of ICT, the new technologies introduced influenced teacher perceptions towards ICT integration. Ghavifekr, S. & Rosdy, W.A.W. (2015), indicated on their study "Teaching and learning with technology: Effectiveness of ICT integration in schools" that technology-based teaching and learning is more effective in compare to traditional classroom. This is because, using ICT tools and equipment will prepare an active learning environment that is more interesting and effective for both teachers and students.

Thakral Pardeep (2015), Conclude by his study "Role of ICT in Professional development of Teachers" That teachers need to help their students in how to learn, how to grow in future, how to develop study skills, how to conduct fundamental research, how to examine, evaluate and assess information and also how to question and then dismantle unauthentic structure of knowledge and cognition if need be by the use of ICT.

Guyen Ismail & Gulbahar Yasemin (2005), Conclude on their study "Social studies teachers ICT usage in Turkey: State, Barriers and Future Recommendation" that The willingness of teachers to change their existing educational habits to utilize ICT in new ways and to carry out preparation associated with implementing new practices are all crucial factors in determining the extent to which innovative practices may be adopted by larger numbers of Turkey. The researcher also stated that ICT creates enormous possibilities but demands high level of skills. Therefore, not all teachers welcomed the widespread introduction of ICT in schools. Finally, the results revealed parallel findings with the literature that the goal of integration of technology in social studies area.

## METHODOLOGY

This present study is based on secondary sources like books, Articles, Journals, Thesis, University News, websites etc. The study was qualitative in approach.

### TEACHERS BELIEFS ON INFORMATION AND COMMUNICATION TECHNOLOGY:

In 21<sup>st</sup> century's education system changed rapidly with the development of teaching and learning technologies. This is for provide a proactive, easy access and comprehensive teaching and learning environment with the help of technology. Now a days the Ministry of Education has provide a lot of facilities on technological teaching and learning. Ministry of Education also provide training on ICT in teaching learning process to enhance the use of ICT. By ICT integration a teacher can develop their study. He/ She presented the topic by picture or movie or any chart and so on in teaching-learning process by ICT. Many, researchers have taken an effort to analyze that teaching learning process are affected by teachers' acceptance of ICT in the classrooms (Capan, 2012; Virkus, 2008; Zhang, 2013; Dudeney, 2010). A previous research (Cox & Marshall, 2007) shows that into previous classrooms, teachers only need a traditional – centered approach but when ICT skills was developed in the classroom, the teachers are having high confidence and competency in teaching-learning process using ICT in classroom though ICT used. This is because they believe that ICT is one of the tool that could help in learning process especially to relate with real life practices. This factor has reform the teaching method to integrate ICT in order to create and construct knowledge for the students and teaching profession. The research shows that the relationship between competency and confidence could reflect on training and also balances between training and pedagogically focused approaches in ICT professional development.

### ROLE OF ICT ON TEACHING PROFESSIONAL DEVELOPMENT IN THIS 21<sup>ST</sup> CENTURY:

The Information and communication technology (ICT) represents one of the current applications of technology in education and for teachers also. "The Information and communication technology (ICT) is the scientific technological, engineering discipline and management techniques used for information handling and processing, their application; computers and their interaction with men and machines and associated social, economical and cultural matters" (UNESCO). In 1998, the UNESCO in its world education report "teachers and teaching in a changing world" says that the radical implications of ICT in the practical teaching learning process. Now in the present situation, ICT has become an important and integral part for teachers and their professional development. Using ICT technology in education means use of computer, laptop, digital camera, video, internet, websites, CD ROMs, DVDs, application of software such as word processing, spread sheet, e-mail, digital libraries, computer mediating conferencing, video conferencing, projectors etc. Now teachers can overcome all barriers in profession, communication and instruction by using ICT. ICT can be used as a tool for training and support of teachers on their profession. The roles of ICT in brief are as follows---

ICT help teachers to interact with students and also help them to provide the students feedback in preparation their teaching. It helps teachers to ingress into institutions and Universities, NCERT, NAAC NCTE and UGC by attending any workshop, seminar or any conference.

It also helps teachers in effective use of ICT software and hardware for professional development which will affect teaching-learning process. It helps in improve Teaching skill and technique in innovative Teaching.

It is now replacing the ancient technology. As we know now-a-days students are always have competitive mind. So teacher must have upgrade their knowledge of the subject, this can be done through ICT.

ICT helps teachers in preparation for new teaching techniques. In order to introduce ICT, different methods and strategies are applied in teaching learning process, different tools are used such as word processing, Database, Spreadsheet etc. which are helps teachers to be a new trend teacher.

Various technology-based plans like orientation course, refresher course; are used to help the teachers teaching profession. ICT prepares teacher for new technology-based classroom situation and also make students for their future occupation and social life.

ICT used to the teachers as an “assisting tool” for example while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently from the subject matter.

ICT is used as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach in a new way and learners can learn a many new things. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.

When teachers are the role of manage or organize the institution, ICTs are used as a popular tool for organization and management in Institutions. Teachers must provide technological support to learn using motion picture, animation, simulation training which helped teachers to give model presentation to the students in classroom situation. It removes the traditional method of teaching and prepare teacher as a modern teacher, which prove that teachers are developed their profession.

ICT is played an important role in student evaluation. Now days the summative and formative evaluation are so easy by ICT integration. We call ICT as a store house of teacher because all newly added teaching skill, techniques and any educational information can safely store through ICT.

ICT helps Teacher to communicate properly with their students. So, ICT bridge the gap between teacher and students. ICT helps Teacher to pass all information to students within a very little time. ICT helps Teacher to design and decorate educational environment and institution. ICT helps Teacher for organizational preconditions (vision, policy and culture). It is also help Teacher for their personnel support (knowledge, attitude, skills). ICT helpful for technical preconditions (infrastructure).

ICT helpful for designed learning situations which are needed for both vocational education and the training of future teachers (in the teacher training institutes). Teachers can develop their curriculum for professional development using ICT, with the help of ICT Teacher training institutes communication network. Teachers learn most from their own networks (learning from others) with the help of ICT.

#### BENEFITS OF TEACHING PROFESSION USING ICT:

It is important to acknowledge that students are already interested and also engaged in using technology, this creates many amazing opportunities and for teachers to integrate some forms of technology in the classroom and to make teaching and learning more effective. Here are some of the main benefits of using technology in the classroom, which are as follows-

##### a) Improves teacher engagement in teaching:

When teachers are integrated technology into lessons which he studying, students are expected to be more interested in the subjects they are studying. Technology provides different opportunities to make learning more fun, enjoyable and interesting which an opportunity of teacher is to presented the subject as per students' wishes.

##### b) Encouragement in Teaching-learning process:

Every Teachers teaching way is not same because of different styles and different abilities. Technology provides great opportunities for making teaching and learning more effective for everyone with different styles and abilities. Access to the internet gives teachers a broad range of resources to conduct research in different ways, which in turn can increase the engagement.

##### c) Learn useful life skills through ICT:

By using technology in the classroom, both teachers and students can develop skills which are essential for this 21<sup>st</sup> century. Students can gain the skills from teachers which will need to be problems, critical thinking,

developing different forms of communication and leadership skills, and improving motivation and productivity of lessons.

d) Teachers benefits on teaching:

With countless online resources, technologies are help to improve teaching. Teachers can use different apps or trusted online resources to enhance the traditional teaching into a effective teaching and to keep students more engaged. Virtual lesson plans, grading software and online assessments can help teachers to save a lots-of-time.

e) Improvement of Profession:

Teachers can improve their teaching profession by seminar, workshops, online courses, paper publication, many orientation and refresher courses etc. All of these are presented or submitted with the help of ICT. For example, a teacher can find out where a seminar will be held through an online group, and he has to rely on the internet to create his/her paper.

f) Improvement of Knowledge retention:

Teachers who are engaged in teaching and interested in things are teach, are expected to have better knowledge receptivity. As mentioned before, technology can help to encourage active participation in the classroom which also is a very important factor for increased knowledge retention.

#### RECENT TRENDS IN PROFESSIONAL DEVELOPMENT OF TEACHERS:

The educators are the course an integral element of the learning ecosystem. And that is why it is important to familiarize them with present generation competencies and skills so that students can experience the best of the technologies which are available now-a-days. This simply pushes the need for professional development programs of teachers when they can get better with the teaching-learning pedagogies as well as enhance their lateral thinking abilities. School authorities are taking initiatives to organize such programs and training on skill based for teachers of all level classes to help them make an impact on the present learning trends. Surprisingly, the trend is now seen in both private as well as public sector educational institutions.

#### CONCLUSION

In our society, the teaching profession is one of dignity. It is evident from the discussion above that ICT enables teachers to learn new information, acquire new skills, improve their profession, and utilize new digital tools and resources. By utilizing ICT, instructors may learn new information and improve how they interact with their pupils. ICT is a highly effective tool for bringing about the quick changes in our society. It can alter the nature and method of education as well as the roles that students and teachers play in the process of teaching and learning. Technology is being used by teachers to start classes. Teachers now frequently use laptops, LCD projectors, desktop computers, EDUCOM, Smart courses, and memory sticks in the classroom. So, we should use information & communication Technology in the development of Teaching Profession as because now teachers are the only person who can create a bright future for students. The Suggestions for future study are every aspect should be explained clearly. Teaching Profession should be based on present and future needs. Teaching Profession should better with the help of ICT. Orientation and Workshops should be organized for the betterment of teaching profession. Keep in mind that ICT is a new orientation in education, so to be used it with care and not to harm in students future life. This paper has not covered any statistical analysis on role of ICT in 21st Century's Teaching Professional Development however further in-depth study with statistical research may also be undertaken.

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