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ROLE OF ICT IN TEACHER EDUCATION

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Abstract

Teachers are the backbone of our society who generates skilled and quality manpower. They spearhead change by shaping and building students' personality and make them ideal citizens of the country. As one looks at the great impact on the growth, development and wellbeing of the students and nation, one must agree that teaching is a noble profession. Teaching is an art. The teacher is an artist. To know the art of teaching requires considerable knowledge, a wide variety of interests and skills and a very positive attitude on the part of teachers. A teacher is to understand his subject as well as his pupil, he is to motivate, to instruct, to organize, to evaluate, etc., it means that he has to play many roles and that too very efficiently. To attain efficiency in every aspect of teaching it is essential that a teacher should undergo a well-designed course of teacher education. Not only to this extent, but teacher education should continue as long as the teacher is in the profession. Theoretical knowledge of technologies in education is not sufficient unless and until the practical aspect of teacher training is not adopting ICT. Education technology should be an essential part of our Prospective teacher training courses.

Keywords: Backbone, Society, Teacher Education, Noble Profession, Eternal, Learning System, All-Round Development.

Introduction

Teachers are the backbone of our who generates skilled and quality manpower. They spearhead change by shaping and building students' personality and make them society ideal citizens of the country. As one looks at the great impact on the growth, development and wellbeing of the students and nation, one must agree that teaching is a noble profession. One more quotation is - parents' give birth, but the teacher gives life. Therefore, the teaching of the teacher should act as a weapon of all-round development of the nations' through shaping their students. In this way, teacher and student have to adopt the new innovative trends in learning system and in daily life.

Education for All-round Development of the Nation

The great Chinese scholar, namely Confucius, being an oldest educationist wrote a treatise - real development of the society we can attain when the people in order, peace without violence, no crime, cities with more harmony, better living conditions, love and affections, moral, valuable human relations but not materialistic. Human science like education has been vitally maintained for the economic development. 'The Great Learning' around 2500 years ago, in this book, he sets out the human science process in these words'.

“Those who wished to make their wills sincere would first extend their knowledge. The extensive knowledge consists in the investigation of things. When things are investigated, knowledge is extended; when knowledge is extended, the will becomes sincere. When the will is sincere, the mind is rectified, when the mind is rectified, the personal life is cultivated; when personal life is cultivated, the family will be regulated; when the family is regulated the state will be in order and when the state is in order; there will be peace, and peace is one of the important ingredients which lead to Economic Development”.

Teacher Education

Dr. S. Radha Krishnan quoted “A good teacher is an eternal student. A teacher is the one who teaches the true meaning of life. A teacher introduces a new vision of life. A teacher helps in accomplishing a target. A teacher is a source of inspiration.” In the olden times, there was no systematic provision for the education of teacher, but it was assumed that he alone had a right to teach who had acquired complete mastery over knowledge and could also translate it into practical life. Indian teachers imparted education with a unique devotion.

The society gave these teachers the highest respect because they were committed to bring about the comprehensive and harmonious development of the student's personality as it is expressed in the statement 'aacharya devo bhava' which occurs in the Taitriya Upanishad.

Even during the Buddhist and Jain periods, a teacher occupied a much-respected place in society. It was presumed that he gave the student real self- knowledge. Respect was shown to him by saying "Na devahshriguroh" During the middle ages, a person



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well versed in religious rituals and predominance was regarded as a good teacher. The need for systematic education of teachers came to be felt during the British period, which led to teacher training.

In the system of personal relationship within which children learn, the teacher is probably next to members of the immediate family. In the classroom group, where children, adolescents and adults interact, the teacher acts as the leader, the one who gives or withholds security and is responsible for law and order. The teacher is considered as the pivot of any educational system of education. If the teachers are well educated and trained and if they are intellectually alive and take interest in their job, then only the success is ensured but on the other hand, if they lack training in education and if they cannot give their heart to their job, the system is destined to fail.

Teaching is an art. The teacher is an artist. To know the art of teaching requires considerable knowledge, a wide variety of interests and skills and a very positive attitude on the part of teachers. A teacher is to understand his subject as well as his pupil, he is to motivate, to instruct, to organize, to evaluate, etc., it means that he has to play many roles and that too very efficiently. To attain efficiency in every aspect of teaching it is essential that a teacher should undergo a well-designed course of teacher education. Not only to this extent, but teacher education should continue as long as the teacher is in the profession.

The development of new methods of teaching and learning in schools and higher education has been rapid. The last decade in particular has seen an explosion in the literature on a wide variety of methodological innovations like resource-based learning and resource centers: simulations, games and role play, independent and distance learning education based on ICT. These developments are significant not only for the content of teacher education, but also for its methods. In other words, there is no point in telling teachers about innovative methods, it is far more effective to use them.

The use of ICT in education improves the quality of education and brings about desirable changes both qualitative and quantitative. Teacher education needs to imbibe the skill of using ICT tools more than anybody else in the educational setup because these teacher educators are the persons who mold the teachers and the input in the process of education. Therefore, there is a need to train teachers in the use of ICT tools to get good results in the field of education.

Role of the Teacher in 21st Century

The teacher in the emerging Indian society has a very crucial role in the social reconstruction and in the transmission of wisdom, knowledge and experiences of one generation to another. Children are the potential wealth of a nation. They are always exposed to the information of the teacher. It is therefore necessary to realize that the emerging Indian society can achieve all round development with the help of the teacher who acts as a powerful agency in transmitting its cherished values. A teacher is not only a custodian of a nation values but is also an architect par excellence of new values. A teacher can help our country in the process of reconstruction. But so far, we have not been able to harness this extremely useful manpower. This could be possible if the teacher's role is properly recognized and he is in the proper frame of mind to understand the problems of the country and make a sincere effort to create a climate in which society can move forward. Dr. S. Radhakrishnan has apparently remarked, "Teachers place in society has vital importance; he acts as the point of the transmission of intellectual tradition and technical skill from generation to generation and helps to keep the lamp of civilization burning". The secondary education commission has rightly stated, "We are, however, convinced that the most important factor in the contemplated education reconstruction is the teacher, his personal qualities, his educational qualifications, his professional training and the place that he occupies in the school as well as in the community. Now with the increasing complexity of modern times, education faces ever changing new demands, and most teachers have to bear the brunt of the changes. Hence, the teachers need to change their role.

Teaching in the 21-century is an altogether different phenomenon; never before could learning be happening the way it is now -- everywhere, all the time, on any possible topic, supporting any possible learning style or preference. But what does being a 21st-century teacher really means? Below are the characteristics of a 21st-century teacher (Tsisana Palmer, 2017):

Need and Significance of ICT Integration in Teachers' Education

Theoretical knowledge of technologies in education is not sufficient unless and until the practical aspect of teacher training is not adopting ICT. Education technology should be an essential part of our Prospective teacher training courses. It encompasses e-learning, multimedia learning (MML), information and communication technology (ICT), technology enhanced learning (TEL), computer-based instruction (CBI), computer assisted training (CAT), computer aided instruction (CAI), internet-based training (IBT), web-based training (WBT), computer mediated communication (CMC), virtual learning environment (VLE), m-learning and digital education etc. Many of these technologies are being used successfully in distance learning programs, but to develop the effective classroom teaching the use of ICT should be well woven in our teacher training program to make prospective teachers more competent with enhanced capacity in this era of globalization. A successful teacher training program is one which develop teaching skills and



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capacity to face the challenges in present scenario. Use of ICT for teacher training program has been recognized by the government of various South Asian Countries. In India Intel has initiated “Intel Teach across India Program”. Several other programs are also running in the same direction. Training a teacher to use ICT in his teaching is more crucial than acquiring theoretical knowledge of ICT tools. ICT use is not to make content attractive, but it is used to organize, share and collaborate the information and communicate in an effective manner making teaching learning more productive. Only blackboard may not be helpful in elaborating various instructions. Imparting the knowledge through ICT tools may reduce efforts and energy and make more impressive effective learning. Thus, the use of ICT has changed the role of teachers from disseminator of information to learning facilitator, helping students to construct their own understanding (P. S. Kawatra, 2006).

Role of ICT in 21st Century’s Teacher Education

The concept of moving the traditional classroom of desks, notebooks, pencils, and blackboard to an online forum of computers, software, and the Internet intimidates many teachers who are accustomed to the face-to-face interaction of the traditional classroom. In the past 10 years, online instruction has become extremely popular. Technology encourages teachers to take on new and expanded roles, both inside and outside the classroom. Within the classroom, technology supports student-centered instruction. The teacher assumes the role of coach or facilitator while students work collaboratively. Outside the classroom, technology supports teacher collaboration. Instead of working in isolation, teachers can work together on school-wide programs that they can help find solutions to problems, act as peer advisors to provide information and feedback, and collect data to test hypotheses. Their new roles may involve distance collaboration with cross-school peer groups and study groups through telecommunications. Professional development for technology use provides opportunities for teachers to become comfortable and effective in these new roles.

Research studies indicate that educational use of ICT is challenging for teachers (Hammond, et al. 2009). ICT is expected to change teachers’ pedagogical practices; meanwhile integration is seen to be based on teachers’ attitudes and knowledge (Cullen et al. 2011). Attitudes and pedagogical beliefs are traditionally examined as teachers’ individual perceptions and individual choices (Sang, et al. 2010). Recently, teachers’ attitudes and pedagogical beliefs are discussed from the perspective of generation. Integration of technology is expected to be easier for younger generations than for older generations. Nowadays student teachers are assumed to belong to this younger generation who are born in a digital age and who are familiar with ICT (Bennett 2010, Valtonen, et al. 2011). However, generation is seen to be too wide perspective to evaluate the educational use of ICT and research has indicated that there are differences how student teachers use ICT in everyday life and how student teachers integrate ICT into teaching and learning.

- ICT helps teachers in both pre-service and in-service teacher training.
- ICT helps teachers to interact with students.
- It helps them in preparing their teaching, provide feedback.
- ICT also helps teachers to access with institutions and Universities, NCERT, NAAC, NCTE and UGC etc.
- It also helps in effective use of ICT software and hardware for teaching learning process.
- It helps in improving Teaching skill, helps in innovative Teaching.
- It helps in effectiveness of classroom.
- It also helps in improving Professional Development and Educational management as well as enhances Active Learning of teacher Trainees.
- It is now replacing the ancient technology. As we know now-days students are always having a competitive mind. So, the teacher must have the knowledge of the subject. This can be done through ICT.
- ICT helps teachers in preparation for teaching. In order to introduce ICT in pre-service teacher education different methods and strategies are applied. Different tools are used such as word processing, Database, Spreadsheet etc. Various technology-based plans are used to help the teachers for their practice teaching.
- ICT prepares teacher for the use of their skills in the real classroom situation and also make students for their future occupation and social life.
- ICT used as an assisting tool for example, while making assignments, communicating, collecting data & documentation, and conducting research. Typically, ICT is used independently of the subject matter.
- ICT as a medium for teaching and learning. It is a tool for teaching and learning itself, the medium through which teachers can teach and learners can learn. It appears in many different forms, such as drill and practice exercises, in simulations and educational networks.
- ICT as a popular tool for organization and management in Institutions.
- Teachers must provide technological support to learn to use motion picture, animation, simulation training which helped student teachers to give a model presentation. If the teacher is highly equipped with technology, the student will also be equipped with technology.
- It removes the traditional method of teaching and prepare the teacher to apply modern methods of teaching.



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- ICT plays an important role in student evaluation.
- ICT is store house of educational institution because all educational information can safely store through ICT.
- ICT helps Teacher to communicate properly with their students. So, ICT bridges the gap between teacher and students.
- ICT helps Teacher to pass information to students within a very little time.
- ICT helps Teacher to design educational environment.
- ICT helps Teacher to identify a creative child in an educational institute.
- ICT helps Teacher to motivate students and growing interest in learning.
- ICT helps Teacher for organizational preconditions (vision, policy and culture).
- It is also helping Teacher for their personnel support (knowledge, attitude, skills).
- ICT helpful for technical preconditions (infrastructure).
- ICT helpful for designing learning situations which are needed for both vocational education and the training of future teachers (in the teacher training institutes).
- Teacher training institutes can develop their curriculum using ICT.
- With the help of ICT Teacher training institutes can develop communication network.
- Teachers learn most of their own networks (learning from others) with the help of ICT.

References

1. Archana Ganesh,W. (2014). Effectiveness of ICT in Teacher Education: An Experimental Study. *Edutracks*, 13(10), 25-26.
2. RachanaRathore (2007). "Effective Teaching Through e-learning", *Edutracks*, August, 6(12).
3. Singaravelu.G and Muthukrishnan.T. (2007). "ICT: A Boon for Higher Education", *Edutracks*, August, 6(12).
4. Vimal Kumar. (2010). "Integration of ICT in Teacher Education", *Global Journal of Computer Science and Technology*,10(15), (ver. 1.0) December.
5. World Bank (1998), *The World Development Report 1998/99*. Quoted in Blurton, C., *New Directions of ICT Use in Education*.

Webliography

1. http://click4it.org/images/f/f5/Traditional_Learning_vs_eLearning.pdf
2. www.scribd.com.
3. www.osun.org
4. www.icssr.org.
5. www.Ncert.org
6. www.isrj.net
7. <http://ncte-india.org/>
8. <http://www.edutechindia.org>
9. www.education.nic.in

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