# ENGAGEMENT OF TEACHER-EDUCATORS IN ONLINE TEACHING-LEARNING PROCESS- A COMPARATIVE STUDY

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## *Abstract*

*All over India, many teacher training programs are running. These teacher education programs have improved the quality of education in India. The goal, rules & regulations and curriculum for the teacher education programs are designed by the NCTE from time to time. In the latest curriculum, the most immediate transformation that the education system is undergoing today is, the use of information and communication technology (ICT). One of the dimensions of ICT is online learning technology and student teachers; and teacher educators should be prepared to integrate it into their teaching and learning practices. On the World Wide Web, so many websites are made by the different organizations to provide online education. There is a vast array of online learning resource, that the student teachers can freely access and benefit from. Having at least a familiarity with online learning environments is extremely essential for the teacher-educators not only during their pre-service training but also for their in-service training in the future to be in the mainstream of the requirements of the changing society. There is also tremendous scope for them to use online learning environments for teaching purposes but in Indian universities, teacher- educators are not so aware of online learning. Teacher -educators are more aware of ICT on mobile and other entertainment devices but not for online learning. This study analyzes the extent to which the teacher-educators are aware of the online resources and are able to use it for teaching and learning purposes. The sample was selected from the University of Allahabad (Central University of Allahabad Region), Central University of South Bihar (Bihar Region), Chaudhary Charan Singh University, Meerut and Dr.B.R. Ambedkar University, Agra (State Universities of West Uttar Pradesh Region) to compare the engagement of teacher-educators in online teaching-learning of these central and state universities. It highlights the present status of the teacher training programs regarding their knowledge and involvement with online learning technology and awareness could be spread in teacher-educators towards the online teaching-learning process.*

***Keywords:*** *Information and Communication Technology (ICT), Higher Education, MOOCs, SWAYAM, Online Teaching-Learning, Teacher Education.*

## INTRODUCTION

Engagement of teacher-educators in online teaching-learning is a good symbol for futuristic education. ICT based education is a broad and changing term due to the breadth of the area of study and the rapid and ever-changing nature of technology. Information and communication technology applications include, but are not limited to, desktop publishing and presentations, computer use in classrooms, telecommunications and distance education, computer hardware and software, networking, lab administration, multimedia presentations, and publishing. Obviously, we cannot cover them all. Additionally, it does not help to learn to use technology in isolation, especially when technology changes quickly and dramatically. The learning of technology must be integrated into daily classroom teaching activities within the context of educational goals for it to be meaningful. Teacher education programs in India have been largely traditional with a slow pace of modernization, and we have not yet been in a position to infuse in it; the technological innovations for transacting education (Goel & Goel, 2013). The engagement of teacher-educators with online teaching-learning is a very effective process. To enhance the educational experience of the teacher-training programs has been mostly negligible. Information and communication technology has the potential to help teacher-training programs to overcome the challenges. It has been facing over the years. These challenges have rendered the programs inadequate in providing the schools with quality teachers, thus hampering the education process. Twenty-five percent teachers are absent from government primary schools and only about half are completing their full teaching hours, bringing to light the lack of dedication on the part of teachers (Kremer, Chaudhury, Rogers, et. al., 2005). Another aspect is acquiring teaching skills required for preparing young people to enter the rapidly changing world, and for this teachers will have to keep themselves up to date and in the mainstream of educational developments (Nachimuthu, 2010). If teacher-educators can deliver different micro-teaching skills through their best presentation in videos on online mode, obviously learners will improve the quality in their skills and teaching-learning process. Many problems and challenges can remove with the help of Information and communication technology. This technology is seen to have the potential to facilitate this change. In NCTE-2014 rules and regulations, ICT is an integral part of the education system. Very fast it is becoming an inevitable part of the education system and is changing the pattern of teaching and learning at all levels. According to Gupta & Amre, 2013, the teachers will, therefore, have to prepare themselves for the changed responsibilities and skill sets for future teaching that will involve high levels of Information and Communication Technology (ICT) and the need for more facilitative than didactic teaching roles.

## NEED AND SIGNIFICANCE OF THE STUDY

Knowledge, education, and learning are strongly linked with society and its evolution. One cannot teach or learn nowadays the same way as a century ago. More particularly, the quick and deep changes brought by ICT (Information and Communication Technology) have a strong influence on knowledge, teaching, and learning. But teacher-educators themselves are changing and evolving decade after decade. And education must permanently adapt to the new generations of learners. The scenario of the classroom is changing. There is a technological gap between the progress of the society and instructional activities of the teacher in the classroom.  If we see in our society; on the one hand technology has revolutionized our society and on the other hand, the teaching-learning activities at school and college level have remained so far away from technology. In our classroom, the knowledge is imparted by the teacher in an ancient way, a teacher-centric mode which is most of the time boring and not to gain interest to the student. But present 21$^{st}$ Century's education is student-centric education.  Students learn from multi sources and for this reason use of ICT & Multimedia are very much essential in the educational field and simultaneously teacher's knowledge of ICT and Multimedia is also required. There is a general consensus that new pedagogy needs to be developed to utilize new dimensions of training as provided by ICT (Agrawal, 2013). Our teachers need to master the skills like thinking, finding, creating, evaluating, analyzing and applying new content understanding with great flexibility for which technology can prove to be highly effective (Deb, 2013). It was realized that educational transformation is not possible unless teacher education programs are transformed to prepare the teachers to play their pivotal role in this process of change (Deshmukh, Chougule, et. al). In 2009, the National Council of Teacher Education (NCTE) prepared and circulated the National Curriculum Framework of Teacher Education (NCFTE), which would be consistent with the changed philosophy of school curriculum and had some important dimensions as (MHRD, 2015)

- Reflective practice to be the central aim of teacher education;
- Opportunities for self-learning, reflection, assimilation, and articulation of new ideas;
- Developing capacities for self-directed learning, ability to think, be critical and to work in groups.
- Providing opportunities to observe and engage with, communicate with, and relate to children.

The teacher training programs were re-designed to incorporate this philosophy and the discipline of education technology was introduced to make teachers aware of its

importance and use. It is an enabling discipline designed to make the teaching of any subject more efficient and effective to meet the goals for which the subject is being taught (NCERT, 2006). But technology still seems to be far from realizing its full potential in the field of education. It has been realized that there is a need to adopt a two-pronged strategy: training and educating teachers through the use of technology and training teachers in the use of technology (Sain & Kaware, 2013).

In teacher education programs, teacher-educators are aware or not aware of the online teaching-learning system, to know the engagement of teacher-educators in online learning, investigators conducted this study. So, the present study has great need and significance because this study shows a comparative status of engagement in online learning of teacher-educators of central and state universities.

## STATEMENT OF THE PROBLEM
The problem was stated as-
*'Engagement of Teacher-Educators in Online Teaching-Learning Process- A Comparative Study'*

## OBJECTIVE OF THE STUDY
The objective of the present study is –
To find out the engagement of teacher-educators in online teaching-learning process in Teacher Education programs

## RESEARCH METHODOLOGY
This study focuses on teacher-educators perception about the inclusion of the online teaching-learning process for the purpose of efficient teaching and learning and their own access, awareness and use of online resources for the same. This present study is based on primary sources like data collection from the teacher-educators of different universities. The method used is a Descriptive Analytic method. There are two aspects that are covered in this research: (a) to assess teachers-educators' opinion on the importance of online teaching-learning in the teaching and learning process. (b) the practical use of online teaching-learning resources.

## SAMPLE
The population of this study includes B.Ed. and M.Ed. teacher-educators of colleges that are affiliated to University of Allahabad (Central University), Central University of South Bihar, Chaudhary Charan Singh University, Meerut and Dr.B.R.Ambedkar University, Agra. Volunteer sampling was used as the teacher-educators volunteered to participate in the research after being informed about its nature and intent.

| Gender | Name of Institution/ University | | | | | | Total |
|---|---|---|---|---|---|---|---|
| | **Central Universities** | | | **State Universities** | | | |
| | **CUSB, Gaya** | **University of Allahabad** | | **CCS University, Meerut** | **Dr. B.R. Ambedkar University, Agra** | | |
| | School of Education | CMP College | SS Khanna College | VMLG College | PMC College | DS College | |
| **Female** | 20 | 15 | 15 | 20 | 15 | 15 | **100** |
| **Male** | 20 | 15 | 15 | 20 | 15 | 15 | **100** |
| **Total** | **40** | **30** | **30** | **40** | **30** | **30** | **200** |

## TOOL USED

A questionnaire was designed as a tool for data collection. It was a structured questionnaire, keeping in mind the quantitative research methodology adopted for this study. Various types of questions were used to frame the questionnaire. In general, the questionnaire consisted of closed questions, simple questions, multiple response questions, and filter questions. The main purpose of choosing a questionnaire as the data collection tool was to be able to collect data from a larger number of teacher-educators within the time.

## DATA COLLECTION

Data was collected from B.Ed. and M.Ed. teacher-educators of the state (Chaudhary Charan Singh University, Meerut & Dr. B. R. Ambedkar University, Agra) and central (University of Allahabad & Central University of South Bihar, Gaya) universities that had agreed to participate. The teacher-educators were provided with all the information regarding this study and were informed about its purpose. All participating teacher-educators gave written consent, be aware that they can withdraw from the study at any point.

## DATA ANALYSIS

A total of 200 teacher-educators (from B.Ed. & M.Ed. Courses) responded to the questionnaire. These included 100 male (50%) and 100 female (50%). The medium of instruction of half of the participants was Hindi and the other half had their medium of instruction as English. The sample was a mix of various backgrounds in education in terms of both streams of study (teacher-educators were related to Science, Commerce, Arts and Social Sciences subjects).

At large scale, teacher-educators of state universities had some access to the Internet outside of their universities while the teacher-educators of central universities are more aware and using online resources in university campuses. In state universities, the facilities of online teaching-

learning are not being provided to teacher-educators in a proper way. However, due to the low number of Internet hours per week, there are a significantly high number of them who did not participate in any form of the online teaching-learning process. The table shows the status of awareness and use of online resources in central and state universities by the teacher-educators.

**Table-2: Status of Awareness and Use of Online Resources in Central and State Universities (in %)**

| Criteria | Teacher-Educators of State Universities | Teacher-Educators of Central Universities |
|---|---|---|
| Awareness of Online Resources | 39% | 76% |
| Use of Online Resources | 6% | 58% |
| Teacher-educators' Opinions on the Importance of Online Teaching-Learning Process | 22% | 72% |
| Use of ICT Devices at Home | 12% | 56% |
| Use of ICT Devices in Universities | 31% | 71% |
| Use of ICT Devices in Cyber Café | 9% | 4% |
| Use of ICT Devices on Mobile Phones | 20% | 78% |
| Teacher-Educators Engaged with Online | | |
| Teaching-Learning | 1% | 11% |
| Awareness about MOOCS & SWAYAM | 5% | 24% |

Table-2 shows that teacher-educators of central universities have more awareness of online resources than the teacher-educators of state universities (76% > 39%). On this behalf, it may be concluded that state universities are not providing proper awareness of online resources to teacher-educators. So, the state universities should run the awareness programs for the awareness of online resources in universities as well as colleges for teacher-educators so that they can use the ICT resources in their teaching-learning process.

It is also found that teacher-educators of central universities are using more online resources than teacher-educators of state universities (58% > 6%) due to high awareness of online learning. Similarly, opinions about the importance of online teaching-learning process are also high of the teacher-educators of central universities (22% < 72%).

12% teacher-educators of state universities are using ICT devices at homes and 31% at universities while 56% teacher-educators of central universities are using these ICT devices at their homes and 71% at universities. It means the teacher-educators of central universities have these ICT devices at their homes while learners of state universities have at a very low level and central universities providing the ICT facilities to learners.

9% teacher-educators of state universities are surfing the Internet or online teaching-learning materials in cyber café in comparison to 4% teacher-educators of central universities due to lack of resources at home. 78% teacher-educators of central universities are using Android or smart mobile phones while 20% teacher-educators of state universities are using these type of mobile devices.

After the analysis on the engagement of teacher-educators in online teaching-learning process, the result is shocking because only 1% teacher-educators are engaged with online teaching-learning process in state universities and 11 % in central universities while 76% teacher-educators are aware of online resources in central universities. It means universities are not providing information about online teaching-learning resources & courses and learning materials also. Only 5% teacher-educators are aware of MOOCs and SWAYAM in state universities in comparison to 24% teacher-educators of central universities. It is a very poor situation that teacher-educators are not engaged in the online teaching-learning process. It means NCFTE and NCTE-2014 rules and regulations are not implementing effectively. The following graphical representation showed the values on different criteria:
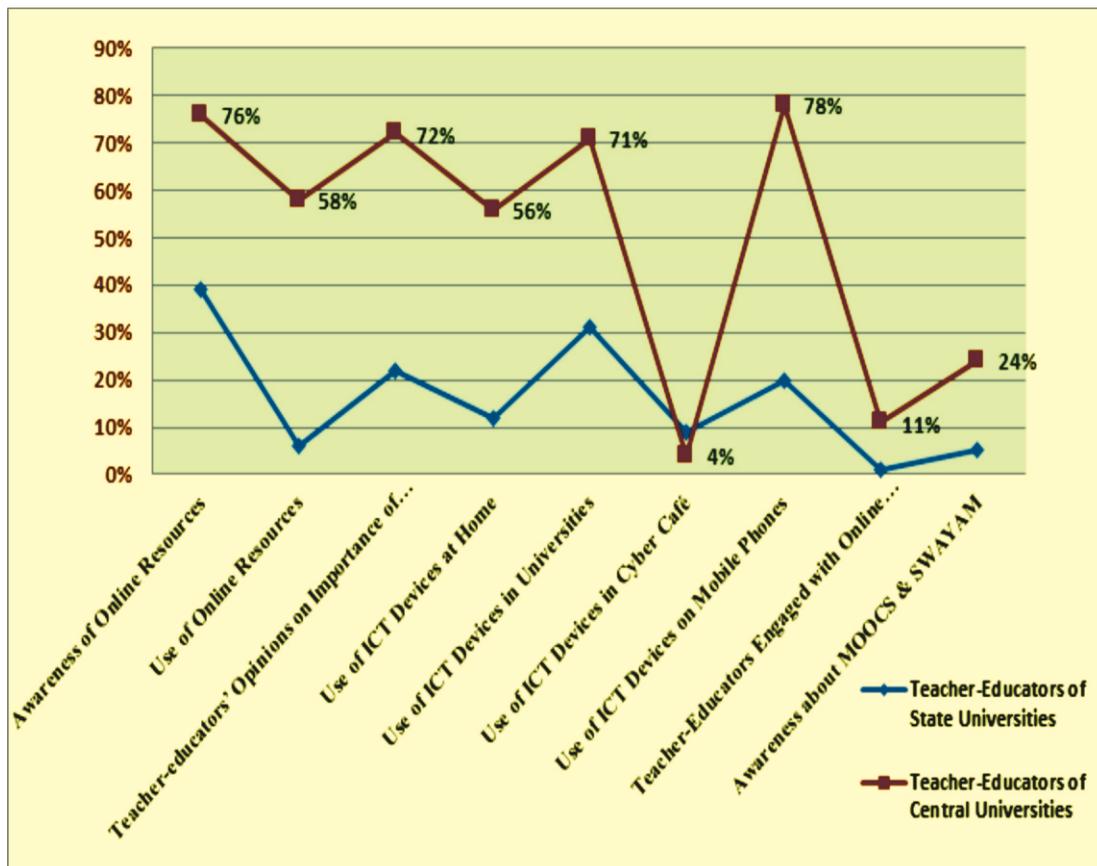
## FINDINGS

Information and Communication Technology (ICT) which is also known as Education Technology previously as a discipline has become a significant part of the curriculum of teacher education programs in India. The teacher-educators have studied the various aspects of technology in education that helps to open their minds to the new possibilities it can provide for improving the quality of teaching and learning. This openness in thought is well reflected in their perception of online teaching-learning technology. The teacher-educators were asked about their opinion on its importance in the teaching and learning process. The result showed that a large number of teacher-educators of central universities used online teaching-learning technology as extremely important in making teaching and learning effective. Teacher-educators of central universities believed that online learning technology is highly effective in teaching and learning whereas teacher-educators of state universities feel that it can make some improvements in teaching methods and learning outcomes. Teacher-educators of central universities have more awareness of online resources than the teacher-educators of state universities (76% > 39%). It seems that state universities are not providing proper awareness of online resource to teacher-educators. It is also found that teacher-educators of central universities are using more online resources than teacher-educators of state universities (58% > 6%) due to high awareness of online teaching-learning resources. Similarly, opinions about the importance of online teaching-learning process are also high of the teacher-educators of central universities (22% < 72%). Only 1% teacher-educators are engaged with online learning in state universities and 11% in central universities while 76% teacher-educators are aware of online resources in central universities. It means universities are not providing information about online resources & courses and teaching-learning materials. Only 5% teacher-educators are aware about MOOCS & SWAYAM in state universities in comparison to 24% teacher-educators of central universities. It is a very poor situation that teacher-educators are not engaged in the online teaching-learning process.

These results clearly show that the majority of teacher-educators understand the relevance of online teaching-learning in the education system and the inevitable role it is likely to play in the future.

## CONCLUSION

Teacher-educators have an honorable position in society.  ICT helps the teacher-educators to update the new knowledge, skills to use the new digital tools and resources. By using and acquiring the knowledge of ICT, teacher-educators should have updated effective teaching-learning competence. ICT is one of the major factors for producing rapid changes in our society. It can change the nature of education and roles of students and teacher in the teaching-learning process. In the present teacher education program, the component of using online learning technology is absent. The only aspect that the students are introduced to is the theoretical aspect of technology in education. While

78% of teacher-educators believed that online learning technology is highly effective in teaching and learning or can make some improvements in teaching methods and learning outcomes but only a few of them actually practically involve themselves with it. This shows the wide gap between theory and practice of technology in teacher training programs. For the teacher training programs to move in the desired direction, efforts need to be made by the educational institutions to provide all time open Internet access to teacher-educators and students on campus. This would make the integration of online learning technology into the teaching and training process. But most of the universities have problems setting up the infrastructure due to lack of funds and expertise. Teaching through online learning will not only make the teacher-educators' own teaching-learning effective, but it will also help them to utilize it for making the learning of their future students more effective. They will be able to self-learn, be up-to-date and understand technology in education in a more richer and holistic manner. So, we should use information & communication Technology in Teacher Education in the 21st Century as because do the effective teaching with the engagement in the online teaching-learning process.

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