



## Awareness towards Massive Open Online Courses (MOOCs) and their usage for Teacher Education in India

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### ABSTRACT :

Open and Distance Learning (ODL) system has changing fast with technological advancements and interventions. Massive Open Online Courses (MOOCs) have emerged as game changers as they are flexible in time and place as well as are mostly free and non credit granting. Though MOOC has gain momentum worldwide but MOOCs in India are in its primary stage. University Grant Commission (UGC) in India has also notified in 2017 that MOOC courses are to be offered through SWAYAM (*Study Webs of Active –Learning for Young Aspiring Minds*). MOOCs can be used for pre-service training as well as a very effective tool for in-service professional development. In such emerging scenario, researchers have explored the awareness among teacher educators about use of MOOCs in teacher education. Awareness towards MOOCs among 156 teacher educators was studied under sub-categories like awareness about the concept, usability, technology, current practices and the policy guidelines. This study has revealed that teacher educators are having basic idea about MOOCs, their strength, mode of offering the course and benefits. There is confusion regarding the role of the MOOCs for teacher training. There is still a lack of understanding about Indian MOOC initiatives like SWAYAM. Study concluded that there is an emergent need not only to develop proper understanding about MOOCs among teacher educators, but also to provide them facilities to develop and integrate MOOCs in their regular classroom practices. Future for MOOCs in India is bright.

Keywords: MOOC, Teacher Education, SWAYAM, Awareness

### INTRODUCTION

Open and Distance Learning (ODL) system has witnessed a paradigm shift with technological advancements and interventions. Role of technology from a supportive medium has changed and technology has become the driver of teaching-learning process. Massive Open Online Courses (MOOCs) are such a type of interventions. MOOCs depict open access, global, free, video based instructional content, videos, problem sets

and forum released through an online platform to a large number of participants to be educated. MOOCs are flexible in time and place. MOOCs are mostly free and non credit granting. The history of MOOCs is not very far. This term was used by Stephen Downes and George Siemens in 2008 in the University of Prince Edward Island (UPEI) for the first time. Connectivism and Connective Knowledge (CCK08) was the first MOOC, offered both as an open course

and in the Certificate in Emerging Technologies and Learning (CETL) at the University of Manitoba. Over 4000 MOOCs are available worldwide and register 35 million users at any given time (Denial, 2016).

Though MOOC has gain momentum worldwide but MOOCs in India are in its primary stage. University Grant Commission (UGC) in India has also notified in 2017 that MOOC courses are to be offered through SWAYAM. With increasing connectivity, initiatives like Digital India and more focus on online learning, it is the right time for teacher education system to synchronize with the emerging trends.

Teacher education in India is mostly offline in nature but there are few initiatives to offer teacher education programme or courses online also. MHRD, Government of India has initiated the 'SWAYAM' portal to digitalize the education system and to reach the remote areas all over the India to achieve the objectives of education for all.

MHRD has entrusted the responsibility to train around 15 Lakh untrained elementary school teachers to NIOS through SWAYAM Platform. NIOS is offering 18 months D.El.Ed. Programme for these untrained elementary teachers. Along with SWAYAM, NIOS is using SWAYAMPBHA DTH channel: 32 to ensure its reach to learners. University of Mumbai, NITTTR Chennai, NITTTR Chandigarh and NITTTR Bhopal are also offering some professional development programmes through MOOCs. NCERT is also offering a course through SWAYAM on Action Research.

It is general perception that for getting benefitted from MOOCs, teacher education system should be

well prepared and teacher educators need to be competent enough to handle these courses. Studies have revealed that MOOCs can be used for pre-service training as well as a very effective tool for in-service professional development. As SWAYAM has become a reality and all higher education institutions will accept, acknowledge and use it in big way, researchers have tried to explore the awareness among teacher educators about use of MOOCs in teacher education.

## REVIEW OF THE LITERATURE

On analyzing the various studies related to MOOCs, its usage, challenges, opportunities, etc., it is observed that there are very few studies in the area of teacher education. Few studies in teacher education talk about the professional development of teachers through MOOCs. (Jobe and Ostlund (2014), Laurillard (2016), Manning, et. al. (2014). Most of the researches are in the form of survey which is conducted on the students who are participating or who have participated in MOOCs. There are very few studies on teachers and on teacher educators. Researchers have reported that not only in India, where as in other countries also the awareness about MOOCs very low among the students and the teachers. (Shigeta, K., Koizumi, M. et. al. (2017), Allen and Seaman (2014), Kumar and Singh (2017), Shakya, M., Shrestha, S. et. al. (July, 2016). Few studies are focusing the scalability issues and low completion rates in MOOCs. (Brown (2013). Studies like Ovaska, (2013) has explored that MOOCs cannot completely replaced traditional learning. Researches highlighted that majority of the MOOCs learners enrolled in MOOCs for career benefits, educational benefits and for the professional development, to gain specific skill, for the advancement of their current job.(Chen, B; et, al. (2015), ), Christensen, et, al. (2013), Hew (2014),

Koutropoulos, et.al. (2012), Yuqin Y. (2016) Few study revealed that there is a gap between students perception and satisfaction of interaction in MOOCs on one hand and instructors perception and satisfaction on the other hand (Khalil & Ebner 2016, Sharma 2001, Sharma & Mishra 2010). Reviewing various researches has helped researchers to zero down the objectives and research questions of the present research.

#### STATEMENT OF THE RESEARCH PROBLEM

Researchers have conducted the following study:

“A Study of Awareness among teacher educators towards Massive Open Online Courses (MOOCs) and their usage for Teacher Education”.

#### OPERATIONAL DEFINITIONS

##### *Awareness*

Awareness is a state of being conscious of one's self and one's surroundings. It is perception and cognitive response to a situation or circumstances. (The science of biological psychology). As proposed study is focusing on awareness required in teacher educators to use MOOCs effectively, hence operationally, awareness in the proposed study means the knowledge of the teacher educators about MOOCs and their usage in teacher training.

Awareness towards MOOCs is categorized under following sub-categories:

- Awareness about the concept
- Awareness about usability
- Awareness about the technology
- Awareness about the current practices
- Awareness about the policy guidelines

##### *Massive Open Online Courses*

There are many definitions available for MOOCs but researchers want to adopt the definition proposed by COL (2015) i.e. A MOOC is an online course that requires no prior qualification for entry, can be assessed by anyone who has an internet connection, and includes large or very large number of learners. For present study, MOOCs will be the courses being offered by various organizations in India by using SWAYAM Platform.

##### *Teacher Education*

Teacher education means the courses/programmes being offered to train teachers at various levels in university departments, affiliated colleges, centrally sponsored institutions like DIETs, etc. For present study, Teacher educations means the elementary and secondary teacher training programme commonly known as Diploma in Elementary Education (D.El.Ed.), Bachelor of Education (B.Ed.) being offered in institutions duly recognized by National Council for Teacher Education (NCTE).

##### *Teacher Educators*

Teacher Educators can be defined operationally for the study as ‘the faculty members teaching in elementary/secondary level teacher education institutions and are responsible for professional teacher preparation.

#### NEED AND SIGNIFICANCE OF THE STUDY

SWAYAM has become a reality and all higher education institutions have to accept, acknowledge and use it in big way. UGC has notified guidelines on the inclusion of online learning with face to face learning, but still there are very few organizations which are participating in developing MOOCs in teacher education in India. Though UGC is providing fund to the organizations for developing courses on SWAYAM portal, even then, there are very few organizations which are presently participating in developing courses on SWAYAM portal.

On reviewing the literature, it is found that most of the studies have been done so far in western world and other countries; there are hardly few studies available in Indian scenario. Most of the studies are on computer science and engineering courses, very few studies are in teacher education but studies have revealed that MOOCs can be used for pre-service training as well as a very effective tool for in-service professional development. Future of higher education in general and teacher education in particular is online.

This motivated researchers to undertake a study to see the awareness among teacher educators about the concept, new initiatives, present practices, policy guidelines and technological requirements, so that necessary steps can be suggested to improve the situation.

### RESEARCH QUESTIONS

To what extent teacher educators are aware about the concept of Massive Open Online Courses (MOOCs)?

To what extent teacher educators are aware about the technological requirements for using MOOCs?

To what extent teacher educators are aware about the present practices of MOOCs?

To what extent teacher educators are aware about the usability MOOCs for teacher education?

To what extent teacher educators are aware about the policy guidelines issued for facilitating education through MOOCs?

### OBJECTIVE

The major objective of the study was “To study the awareness among teacher educators towards Massive Open Online Courses (MOOCs) on various aspects including conceptual understanding, usability, technological requirements, present practice and policy guidelines.”

### DELIMITATION

Study was delimited to teacher training colleges offering Diploma in Elementary Education (D.El.Ed.) and Bachelor of Education (B.Ed. /D.El.Ed.) programmes only.

Data was collected through online tool using Google forms.

Actual size of sample is disproportionate due to difference in responses.

### METHODOLOGY

#### *Research Design*

Proposed research is a descriptive online survey Data was collected by using awareness scale.

#### *Population*

Population for the proposed study was teacher educators teaching in Elementary Education (D.El.Ed.) and Bachelor of Education (B.Ed. /D.El.Ed.) programmes in various institutions of the country.

#### *Sampling Technique*

Researchers have convenient sampling technique. Tool was e-mailed and also circulated through social media platform like Facebook, group messaging services like what’s app among different teacher education groups.

#### *Sample Size*

Total 156 responses were received from teacher educators working in various institutions. Distribution of sample is as follows:

Nature of Institution	Number of Teacher Educators
Central Universities	52
State Universities	35
Affiliated Colleges	69

### TOOLS FOR DATA COLLECTION

Researchers have developed an online Awareness Scale using Google Forms for data collection. It was a mix tool having different types of items. Item wise distribution for various aspects of awareness is as follows:

Aspect of Awareness	Number of Items
Concept	5
Usability	3
Technological requirements	4
Present Practices	7
Policy Guidelines	5

#### *Statistics used*

Researchers have applied percentage analysis for objective number 01-04.

#### INTERPRETATION OF THE DATA

**Awareness about the concept:** In relation to first objective, Researchers found that 25% of teacher educators are not aware of the full form of MOOCs. Around 75.6% i.e. 118 teacher educators know the meaning of openness but only 83 teacher educators i.e. around 53.3% are aware of the meaning of massiveness. Around 2/3 of the respondents (116) i.e. 74.4% are of the opinion that MOOCs are based on the philosophies of Open and Distance Learning. This reflects that awareness about MOOC is still a concern among teacher educators. This finding is in tune with observations of Manna (2018, June 25), who is the Director SWAYAM and PMSS, All India Council for Technical Education, India and expressed his views in an article published in The Times of India with Title “Teachers resist usage of MOOC”.

**Awareness about the technology:** Most of the teacher educators (92.2%) know that Internet is the primary requirement for MOOCs, but only 38.9% are having the idea that MOOCs can be accessed through mobile app. 87.9% are of the opinion that MOOCs courses can be offered through online platform and 47.8% are saying that it can be offered through Mobile apps also but an interesting observation is that 54.4% teacher educators are confused about various platforms offering MOOCs.

Such findings are reflecting the inconsistency in awareness about basic technological requirements. This also reflects that many teacher educators may have not experienced any MOOC firsthand.

**Awareness about usability:** Most of the teacher educators are of the opinion that MOOCs can be used for continuous professional development of in-service teachers (84.4%), but only 54.4% think that it can be used for in-service training of untrained teachers and 43.3% think that it can be used for pre-service teacher training of untrained teachers. It seems pertinent to mention here that at present in India, MOOC is being used for in-service teacher education programme for nearly 15 lakh untrained elementary school teachers by NIOS. NIOS is offering its 18-months Diploma in Elementary Education (D.El.Ed.) through the platform of SWAYAM, but this data reveals that almost 1/2 of the sample is not aware about any such initiatives. Only 13.3% teacher educators feel that MOOCs can be used as full time courses for teacher training. This is quite alarming observation.

**Awareness about the current practices:** When teacher educators are asked about Indian initiatives like SWAYAM, 34.52% teacher educators don't know for what SWAYAM stands? Only 38.9% are aware about its launching date and year. When they were asked about the nature of courses being offered through SWAYAM the responses were quite scattered. Around 70% know about diploma and certificate level courses, around 53% know about degree level courses and around 32% know about senior secondary level courses. Such findings reflect that awareness among teacher educators about various initiatives in India is still pretty less and sincere efforts are required to increase the awareness about various Indian Initiatives for promoting MOOC in higher education in general and teacher education in particular.

Awareness about the policy guidelines: When respondents were asked about the nodal institutions for various courses, only 38.9% know that IGNOU is for diploma and certificate courses, only 35.6% know that UGC is for Post Graduate courses, only 32.2% know that CEC is for Under Graduate courses, only 36% know that NIOS is for Open school education and only 41% know that NCERT is a nodal institution for secondary education. This finding reflects that many teacher educators are still not aware about the nature of courses and offering institution. There is a satisfactory finding that 68.9% teacher educators know that Indian MOOCs courses follow four (04) quadrant approach and 85.6% teacher educators are aware that UGC recognises the courses offered through the SWAYAM, but a contradictory finding is that only 38.9% teacher educators know the correct percentage (20%) of MOOCs courses allowed in one semester. Almost 1/2 of the teacher educators (44.4%) are not having idea about the certificate awarding institutions for a MOOCs course and only 5.6% are aware about the present mode of examination allowed for SWAYAM courses.

At last when teacher educators were asked about enrolling themselves in any MOOC course, only 31.1% say that they enrolled themselves in the MOOC courses but only 14.4% have completed the course. This finding is in tune with many studies which are reflecting that course completion rate is very less in MOOC courses. When they were asked for the reason for not enrolling themselves in any MOOC course, 52.5% have said that they don't have time due to their professional engagements, whereas 15.3% said that they have not found any course of their use.

## MAJOR FINDINGS AND DISCUSSION

This study has revealed that teacher educators are having basic idea about MOOCs, their strength, mode of offering the course and benefits. Most of the teacher educators are also aware about the essential technical requirements, but many of them are confused about the role of the MOOCs for teacher training. Many of them have found these MOOCs courses suitable for professional development and awareness programs. There is still a lack of understanding about Indian MOOC initiatives like SWAYAM. A good number of teacher educators are neither having a clear idea about the nature of courses, nor about the nodal institutions for different level of courses. The teacher educators are also not aware about the process, procedures and assessment strategies etc. The last finding reveals that there are no technological / pedagogical reasons for not opting or going for a MOOC course, rather teacher educators have claimed that they don't have sufficient time.

Most of the above findings are in tune with outcomes of various studies out of India also Like Allen and Seaman (2014) reported in a survey of higher education in the United States that one-third of the faculty surveyed were aware of OERs, wished to take advantage of them, and recognized them as equal in quality to traditional educational resources, when OER were started. Similar is the case with MOOCs in India. Muzafaroba, T. and Kaya, E. (2014) have also reported very low awareness about MOOCs in their study in Georgia.

In last, it can be concluded that MOOCs are in their initial phase in India. Government of India has taken all necessary steps to promote and integrate MOOCs in Higher Education Institutions.

Teacher training programmes being offered through NIOS will be in game changer role in the country and will open new paths for using MOOCs for in-service teacher education in the country. The analysis shows that there is an emergent need not only to develop proper understanding about MOOCs among teacher educators, but also to provide them facilities to develop and integrate MOOCs in their regular classroom practices. Future for MOOCs in India is bright.

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