

# Attitude towards E-Learning in MOOCs: A Comparative Study of Teacher Educators and Prospective Teachers

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## ABSTRACT

Transforming the education system from traditional teaching and learning into blended learning promotes the expansion of MOOCs (Massive Open Online Courses) in higher education institutions. Teacher education is also facilitated by offering accessible, flexible, and self-paced learning opportunities. This study aims to highlight the comparison of teacher educators and Prospective teachers' Attitudes towards E-Learning in MOOCs. Using a descriptive survey method, data were collected through purposive sampling. In this study, a sample of 100 Teacher educators and 100 Prospective teachers was taken, respectively. An attitude scale was developed for both teacher educators and Prospective teachers. The findings revealed that there is no significant difference between the attitudes of teacher educators and Prospective teachers' attitudes towards E-learning in MOOCs. The results have implications for instructional designers, policymakers, and teacher education institutions regarding the optimal utilization of MOOCs in pre-service teacher education.

**Keywords:** Massive Open Online Courses, Attitude, E-Learning, Blended learning, Pre-service teacher education

## INTRODUCTION

MOOCs and e-learning have established an essential role in both teacher professional development and higher education. MOOCs provide and facilitate opportunities for lifelong learning, flexible scheduling, and scalable access to content for learners. The attitudes of essential and concerned stakeholders, especially teacher educators who create and conduct teacher training, and Prospective teachers who aspire to become teachers, are crucial for the successful adoption of educational initiatives, in addition to their availability. This study examines aspects such as perceived usefulness, ease of access, engagement, and behavioural intention to use MOOCs for learning and professional growth, to determine whether teacher educators and Prospective teachers have different attitudes toward e-learning in MOOCs.

The acceptance and effective integration of e-learning platforms, such as MOOCs, are greatly influenced by the attitudes of stakeholders, especially teacher educators and student teachers. It has been demonstrated that favourable attitudes toward educational technology have a significant influence on the possibility of technology adoption, improving teaching methods. The MOOC literature reveals significant gaps, despite the importance of these attitudes. For example, research indicates that MOOCs have potential for enhancing teacher professional development, particularly in promoting self-directed learning. However, there are drawbacks as well, including low completion rates and low learner engagement.

## REVIEW OF RELATED LITERATURE

**Pir and Islam (2024)** found a positive attitude of teacher educators towards Information and Communication Technologies in government and private institutions in Kashmir. Educators from government institutions were showing more favorable dispositions.

**Panja et al. (2023)** found that institutions and professionals shared a similar attitude toward using MOOCs in their academic and professional development. However, some interactions with respondents revealed some noticeable differences.

**Manna (2023)** employed the descriptive survey method among teacher educators and found that respondents held an unfavorable attitude towards traditional learning, while expressing a favorable opinion towards e-learning.

**Bera (2021)** examined the attitude of 300 B.Ed. Student-teachers who received online coaching found that the majority of their students had a positive attitude, regardless of whether they came from rural or urban backgrounds.

**Julia et al. (2021)** aimed to provide insight into educational designs for Massive Open Online Courses (MOOCs) on educational scalability and found that scalable formative feedback can be provided in MOOCs by using multiple formats, such as simulations, peer feedback, and quizzes. Practices for educational scalability can be opted for not only for MOOCs, but also for online learning.

**Ranjan (2020)** revealed that the mean scores for blended learning are higher than those for online learning. Blended learning can support learner-centric teaching and learning.

### Objective of Research

To assess the attitude of teacher educators towards E-Learning in MOOCs.

To assess the attitude of Prospective teachers towards E-Learning in MOOCs.

To compare the attitude of teacher educators and Prospective teachers towards MOOCs.

### Hypothesis

The hypothesis of the present study is given below.

### Null Hypothesis

There is no significant difference between the teacher educators and the Prospective teachers ' Attitudes Towards E-Learning in MOOCs.

### Delimitation of Study

- The Present study was delimited to educational colleges affiliated to Guru Gobind Singh Indraprastha University.
- The present study was delimited to teacher educators and Prospective teachers of educational institutions affiliated with Guru Gobind Singh Indraprastha University.

## METHODOLOGY

A descriptive survey method was used to assess the attitude of teacher educators and Prospective teachers in teacher education institutions. Researchers followed a quantitative approach for data analysis. Developmental research is used in descriptive type methodology.

### Sample and Sampling Technique:

As the title of the study required a population of Teacher Educators and Prospective teachers, from which researchers drew 100 teacher educators and 100 Prospective teachers, the sample was selected using purposive

sampling. Researchers took a sample from educational colleges affiliated with Guru Gobind Singh Indraprastha University, as this university has adopted MOOCs as mandatory in the curriculum for B.Ed. Course.

### Tool:

Researchers developed two attitude scales, comprising eight items for teacher educators and 12 items for Prospective teachers, on a 5-point Likert scale. These tools were self-developed by researchers. Researchers validated the tools from experts and determined the reliability of each tool using Cronbach's alpha. Reliability scores for each tool were found to be 0.82 and 0.84, respectively. The calculated reliability value of the tool reflected “good” internal consistency.

### Data Collection:

Researcher-developed attitude scales were sent to respondents in Google Forms. These forms were sent to the teacher educators and Prospective teachers of teacher education institutions affiliated to Guru Gobind Singh Indraprastha University. Researchers received 105 responses from teacher educators and 135 responses from Prospective teachers. Responses from 100 teacher educators and 100 prospective teachers were selected for further study. Data collection was done by using the purposive sampling technique.

### Statistical analysis of data

Researchers employed statistical analysis to collect, organize, summarize, and interpret numerical data, drawing meaningful conclusions from the results. In this study, researchers intended to compare the attitudes of teacher educators and prospective teachers towards e-learning in MOOCs.

Researchers analysed the data collected from a sample of teacher educators and prospective teachers and presented it in tabular form, as given in Table 1. It presents comparative data in a clear, numerical format.

Table 1 Comparison of Teacher Educators and Prospective Teachers' Attitudes Towards E-Learning in MOOCs

S.no.	Sample	Mean	Standard Deviation	T-value	Interpretation
1.	Teacher Educators	364.88	49.03	<b>1.90</b>	Calculated value of $t$ is less than the table value: <b>Not Rejected <math>H_0</math>.</b>
2.	Prospective Teachers	332.88	73.40		

### Analysis and interpretation

From Table 1, it is clear that the mean scores of teacher educators and Prospective teachers were 364.88 and 332.88, respectively. The standard deviation for teacher educators was 49.03, whereas for Prospective teachers was 73.40. As the calculated  $t$ -value was 1.90, which was less than the table value, the null hypothesis was not rejected.

Hence, it concluded that there was no significant difference between the teacher educators and the Prospective teachers ' Attitudes Towards E-Learning in MOOCs. Both teacher educators and Prospective teachers had the same positive attitude towards E-Learning in MOOCs.

### Findings

- There was a positive attitude of teacher educators towards E-Learning in MOOCs.
- There was a positive attitude among Prospective teachers toward E-Learning in MOOCs.
- There was no significant difference between the teacher educators and the Prospective teachers ' Attitudes Towards E-Learning in MOOCs.

## Interpretation

Teacher educators and Prospective teachers believe that MOOCs provide a digital-friendly environment for teaching and learning. In this study, a targeted sample of Teacher Educators and Prospective teachers also agreed that MOOCs had a positive impact on B.Ed. Education curriculum. They also responded positively to the item that MOOCs help them become independent learners.

## CONCLUSION

This study revealed that both teacher educators and Prospective teachers had significantly more positive attitudes towards e-learning in MOOCs. The study showed enhancement of MOOC adoption in teacher education. There is still scope for adopting digital tools while developing a MOOC course for teacher education, as artificial intelligence is growing rapidly. An affirmation from respondents towards implementing MOOCs in teacher education institutions assures that MOOCs can be an effective medium for imparting online education formally in an efficient and quality manner.

## RECOMMENDATIONS

The authority responsible for developing MOOCs should run an orientation workshop for learners before integrating MOOCs into the curriculum. There is a need to encourage teacher educators to co-create MOOC content relevant to targeted learners. There is a need to build social presence and commitment among Prospective teachers to facilitate peer study groups, such as collaborative learning.

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