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A STUDY ON ATTITUDE OF TEACHER EDUCATORS TOWARDS MOOCS

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Abstract:

Massive Open Online Course (MOOCs) is a current inclusion to the range of online learning options. Many academics have taken interest in MOOCs recognizing the promising to convey education around the world on a remarkable scale. Present study was mainly focusing on attitude of Teacher Educators towards MOOC. The population identified for the current study was 200 Teacher Educators who were presently teaching in TEIs of Karnataka. This study revealed that Female Teacher educators, Arts subject Teacher educators, Urban area Teacher educators and Associate Professor/Professor of TEIs have more positive Attitude than Male Teacher educators, Science subject Teacher educators, Rural area Teacher educators and assistant professors of TEIs.

Key words: MOOC, Teacher Educators, Attitude, Teacher Education Institutes

1. Introduction:

Massive Open Online Course (MOOCs) is a current inclusion to the range of online learning options. Many academics have taken interest in MOOCs recognising the promising to convey education around the world on a remarkable scale. Many popular TEIs of the world like MIT, Stanford, etc, have joined hands with educational technologists to convey quality education to large number of learners who are culturally, geographically and often academically distinct through MOOCs (Liyanagunawardena, Adams & Williams, 2013).

The short form MOOC consist of four words namely Massive, Open, Online and Course in which 'Massive' expresses large scale participation of participants, 'Open' represents that these courses are open for all without any restrictions, 'Online' depicts that such courses are available on only online mode on Internet or no face to face attendance, and last word 'course' denotes about structures of courses offered online to the participants or the concept of a pedagogically produced to online learning.

Besides above, a Massive Open Online Course (MOOC) contains diversity of online reading materials and resources. MOOC is very distinct online learning model from traditional or online classes wherein few numbers of students, face-to-face interactions with age adhere in particular geographical location in a university/college/institute are essential components. MOOCs offer online courses to unlimited users who endure in various locations or different geographical areas with requirements of no addresses, no age bar and almost no cost too. But, it is mandatory for every user who wishes to join MOOC must have a personal computer and internet connection with his/her.

Wikipedia defined the MOOC as a massive open online course is an online course aimed at unlimited participation and open access via the web. In extension to traditional course materials such as readings, filmed lectures and problem sets, many MOOCs provide interactive user forums to support community interactions between students, professors and teaching assistants (TAs).

Thompson (2011) denoted that a MOOC is a model of educational delivery that is, to varying degrees, massive, with theoretically no limit to enrolment; open, allowing anyone to participate, usually at no cost; online, with learning activities typically taking place over the Internet; and a course, structured around a set of learning goals in a defined area of study.

2. Benefits of MOOC:

The following are benefits of Massive Open Online Course (MOOC):-

- a. MOOCs as an effective medium of online education.
- b. MOOCs as a tool to improve LIS education and librarianship.
- c. MOOC can be a tool for building collaboration and professional networking.
- d. MOOC as lifelong learning journey.
- e. Open to any type of users.
- f. Community engagement and outreach programs.
- g. Tool of reputation building.

3. Need for the Study:

The second largest country by population in the world, at present it is at a particular seat with a population of over 1.34 billion, of which more than 50% is below the age of 25 and over 65% population is below the age of 35 (Office of the Registrar General & Census Commissioner India, 2019). With nearly two third of the population being so young, making them serviceable is a enormous responsibility. Hence, to transmit quality education is the key for development and fulfilling the socio - economic challenges.

Fyle (2013) notify in his opinion that there is a massive shortage of teachers worldwide. This shortage is particularly intense in developing countries. India too faces intense faculty shortage. While the student admissions have gone up by more than 100 times between 1950-51 and 2011-12, the strength of teachers has gone up by only less than 40 times, deny the student-teacher ratios about 2.5 times over this period (AISHE, 2013). There is a urgent requirement to train the existing 12, 84,755 higher education teachers continuously to keep them next to with the latest pedagogies, skills, content required for teaching the new age learners (AISHE, 2018). This on-going professional development requirement at present being fulfilled by holding short-term professional development courses, Inter Disciplinary

Refresher courses, Orientation courses, Panel Discussions, Workshops, Seminars, Guest lectures etc, on a regular basis conducted by 66 Human Resource Development centres (HRDC) located throughout India (UGC-HRDC).

Government of India initiative, SWAYAM portal has been developed to convey MOOCs to different learners of various age groups, geographical locations and educational backgrounds. The MOOCs provide flexible, anytime, anywhere low cost learning which is useful to mass learning. It would be consistent to study the action of training higher education teachers through this new medium of learning at a huge scale. A study in this particular aspect is very essential to know the Attitude of higher education teachers and also to know either they are comfortable in getting trained through MOOCs, do they realize themselves to be digitally fluent enough to learn through MOOCs. Hence, the investigator feels the need to study the Attitude of Teacher educators towards MOOCs in higher education. This will clear the interpret about to impose and convenience which MOOCs offer in the area of teacher training which will form the base to educate the millions across the world.

4. Statement of the Problem:

The present study is designed to find out the Attitude of Teacher educators towards MOOCs. The researcher tries to find out the difference in Attitude on MOOCs with respect to different variables like age, sex, subject, designation, experience, educational divisions and the types of management. Hence, keeping all these in views the researcher stated as “A Study on Attitude of Teacher educators towards MOOCs”.

5. Objectives of the study

The following are the objectives of the present study. All the objectives are stated in terms of to know the Attitude of Teacher educators towards MOOCs.

- 1) To study the Attitude of Teacher educators towards MOOCs in relation their gender
- 2) To study the Attitude of Teacher educators towards MOOCs in relation their Subject.
- 3) To study the Attitude of Teacher educators towards MOOCs in relation their Designation
- 4) To study the Attitude of Teacher educators towards MOOCs in relation their Experience
- 5) To study the Attitude of Teacher educators towards MOOCs in relation to TEIs of Educational divisions.

6. Hypothesis of the Study:

The following hypotheses were formed for the present study:

- 1) There is no significant difference of Attitude between the mean scores of male & female Teacher educators towards MOOCs
- 2) There is no significant relationship of Attitude between the mean scores of male & female Teacher educators towards MOOCs
- 3) There is no significant difference of Attitude between the mean scores of Science & arts Teacher educators towards MOOCs
- 4) There is no significant relationship of Attitude between the mean scores of Science & arts Teacher educators towards MOOCs
- 5) There is no significant difference of Attitude between the mean scores of Assistant Professor and Associate Professor/Professor of TEIs towards MOOCs

6) There is no significant relationship of Attitude between the mean scores of Assistant Professor and Associate Professor/Professor of TEIs towards MOOCs

7) There is no significant difference of Attitude between the mean scores of different span of Experience Teacher educators towards MOOCs

8) There is no significant difference of Attitude between the mean scores of Teacher educators working in TEIs of different Educational divisions towards MOOCs

7. Operational Definitions of terms used:

MOOC: Massive Online Open Course (MOOC) is an online course designed at boundless sharing and open access via the web. In extension to traditional course components such as videos, readings and problem sets. MOOCs cater interactive user forms that boost to raise a community for students, professors and teaching assistants. MOOCs have freshly received a great deal of consideration from the media, entrepreneurial vendors, education professionals and technologically literate section of the public.

TEACHER EDUCATORS: They are teacher working in TEIs of Karnataka they may Public are Private in nature. Professors, Assistant Professors and Associate professor were considered for this study

8. Scope of the study:

The subjects for the research are Lecturers working in TEIs of Karnataka. The results of the study may show the effect of sex, age, subject, designation, experience, educational divisions and type of management on Attitude towards MOOCs. The results of the study may be the sources or information which leads to know the Attitudes of Teacher educators towards using MOOCs in an educational setup. This study hopes to support educational institutions in implementing and improvement of MOOCs courses by identifying specific skills, confidence and perceived of usefulness of MOOCs for the current and future work which will increase the high level of work effectiveness and organizational productivity. It is hoped that the outcome of this study will go a long way in providing empirical information to enhance further development of workplace at this digital era.

9. Research Design and Methodology:

The research method, variables, sample as well as tools for data collection form part of Research Methodology. They are presented below.

9.1. Research Method:

In this present study is a descriptive research where researcher used Survey method to know the Attitude of Teacher educators towards MOOCs.

This research elaborates in survey method. A survey is conducted of at least a sample a method of data collection and distinctive questions or items that become data that can be analyzed statistically. A survey may direct on various types of topics such as preferences, opinions, behaviour, or accurate information, depending on its purpose. Survey research is relatively forever based on a sample of the population; the success of the research is dependent on the representativeness of the sample with respect to a purposive population of interest to the researcher.

9.2. Sample of the study

A sample design is a exact plan to acquire a sample from a given population. It mentions the technique or the procedure where the researcher would approve in selecting items for the sample (Das, 2012). Sampling may be defined as “the selection of some part of an aggregate or entirety on the ground of which a judgement or conclusion about the accumulation or totality is made” (Nakkiran& Ramesh, 2009).

The population identified for the current study is Lecturers who are presently teaching in TEIs of Karnataka. 200 Teacher educators are considered as Sample of the study.

9.3. Tools used for the Study:

Investigator himself prepared tool “Attitude of Teacher educators towards MOOC” to collect attitudes of Teacher educators towards MOOC. The tool was prepared after though verification from experts.

9.4. Statistical Techniques for Data Analysis:

In the present study the various responses received in terms of Attitude of Teacher educators towards MOOC were further analyzed using the descriptive technique of percentage. To find out the divergence of observed results, chi-square test was employed. The significant differences and relationship of Attitude towards MOOC were analyzed by independent samples ‘t’ test and ‘r’ test.

10. Analysis and Interpretation of Data:

The purpose of the study was to find out the Attitude of Teacher educators working TEIs of Karnataka. The statistical analysis of the data was collected from all the TEIs of Karnataka. The purposive sampling technique was used to attain the objectives of the study. An independent samples t and F-test was used to analyze. The various responses received in terms of Attitude of Teacher educators towards MOOCs were further analyzed using the inferential data analysis technique.

10.1. Objective wise Analysis of the data:

The significant differences and relationship of Attitude towards MOOC were analyzed by independent samples t test and r-test. The findings of the present study are presented in the following tables:

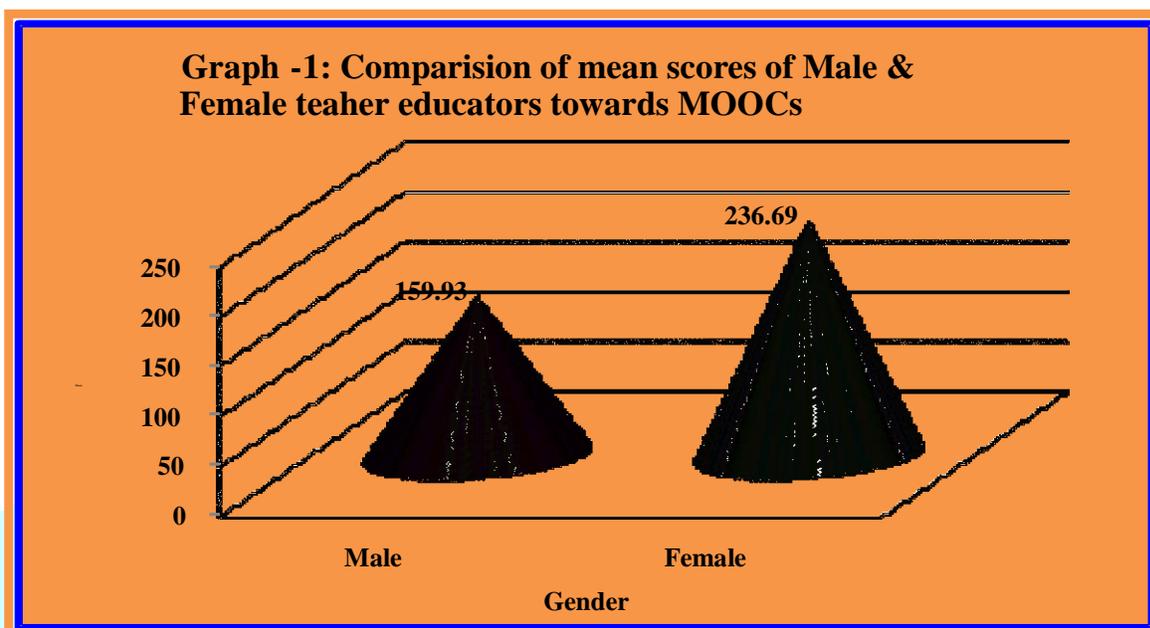
Objective-1: To study the Attitude of Teacher educators towards MOOCs in relation their gender

Table: 1: Mean, S.D. and t-value of mean scores of Male & Female TEIs’ Teacher educators towards MOOCs

Gender	N	Mean	SD	t-value	r-value
Male	100	159.93	23.806	205.213	0.933
Female	100	236.69	18.929		

From the table-1, it is evident that the calculated t-value is 205.213 which is more than the table value 2.63 at 0.01 level of significance with the $df = 1199$ and therefore it is significant and the null hypothesis- H_{01} is rejected and the statement there is significant difference between the mean scores of male and female Teacher educators towards MOOCs is accepted. Female Teacher educators have more positive Attitude than that of male Teacher educators

It is evident that the calculated 'r' value is 0.933 which is more than the table value at 0.01 level of significance and therefore it is significant and the null hypothesis-H₀₂ is rejected and the statement there is significant relationship between the mean scores of male and female Teacher educators towards MOOCs is accepted.



Objective-2: To study the Attitude of Teacher educators towards MOOCs in relation their Subject.

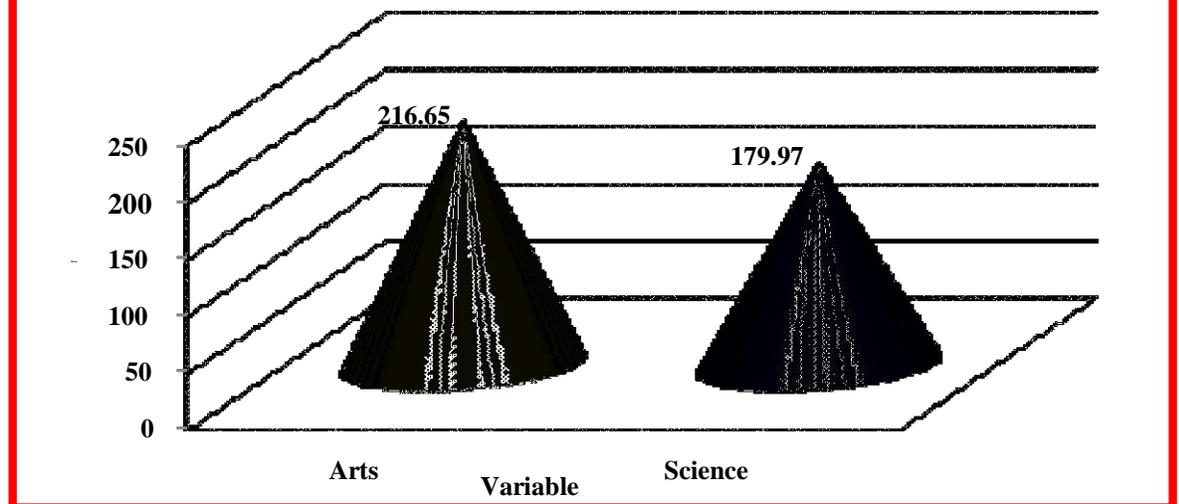
Table-2: Mean, S.D. and t-value of mean scores of Science & arts Teacher educators towards MOOCs

Variable	N	Mean	SD	t-value	r-value
Arts	100	216.65	37.706	97.85	0.980
Science	100	179.97	42.197		

From the table 2 it is evident that the calculated 't' value is 97.85 which is more than the table value 2.63 at 0.01 level of significance with the df = 1199 and therefore it is significant and the null hypothesis-H₀₃ is rejected and the statement there is significant difference between the mean scores of Science & arts Teacher educators towards MOOCs is accepted. Arts Subject Teacher educators have more positive Attitude than that of Science subject Teacher educators

It is evident that the calculated 'r' value is 0.980 which is more than the table value at 0.01 level of significance with the df = 1199 and therefore it is significant and the null hypothesis-H₀₄ is rejected and the statement there is significant relationship between the mean scores of Science & arts Teacher educators towards MOOCs is accepted.

Graph -2: Comparison of mean scores of Science & arts lecturers towards MOOCs



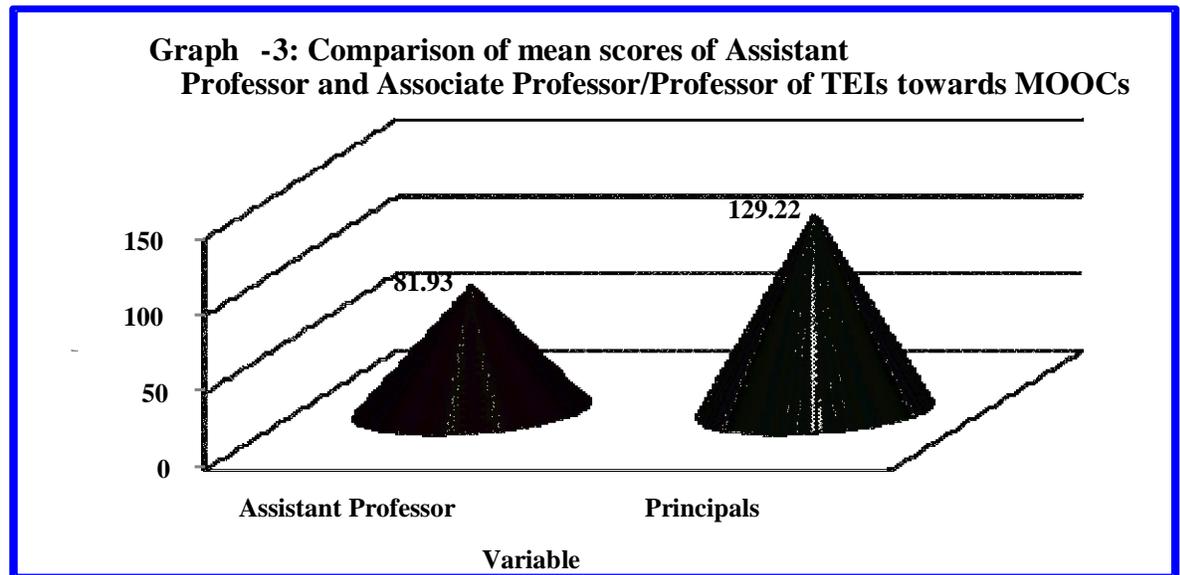
Objective-3: To study the Attitude of Teacher educators towards MOOCs in relation their Designation

Table: 3: Mean, S.D. and t-value of mean scores of Assistant Professor and Associate Professor/Professor of TEIs towards MOOCs

Variable	N	Mean	SD	t-value	r-value
Assistant Professor	100	81.93	18.994	54.76	0.803
Associate Professor/Professor	100	129.22	08.650		

From the table 3 it is evident that the calculated t' value is 54.76 which is more than the table value 2.63 at 0.01 level of significance with the $df = 599$ and therefore it is significant and the null hypothesis- H_{05} is rejected and the statement there is significant difference between the mean scores of Assistant Professor and Associate Professor/Professor of TEIs towards MOOCs is accepted. Associate Professor/Professor of TEIs have more positive Attitude than that of Assistant Professor of TEIs.

It is evident that the calculated 'r' value is 0.803 which is more than the table value at 0.01 level of significance and therefore it is significant and the null hypothesis- H_{06} is rejected and the statement there is significant relationship between the mean scores of Assistant Professor and Associate Professor/Professor of TEIs towards MOOCs is accepted.



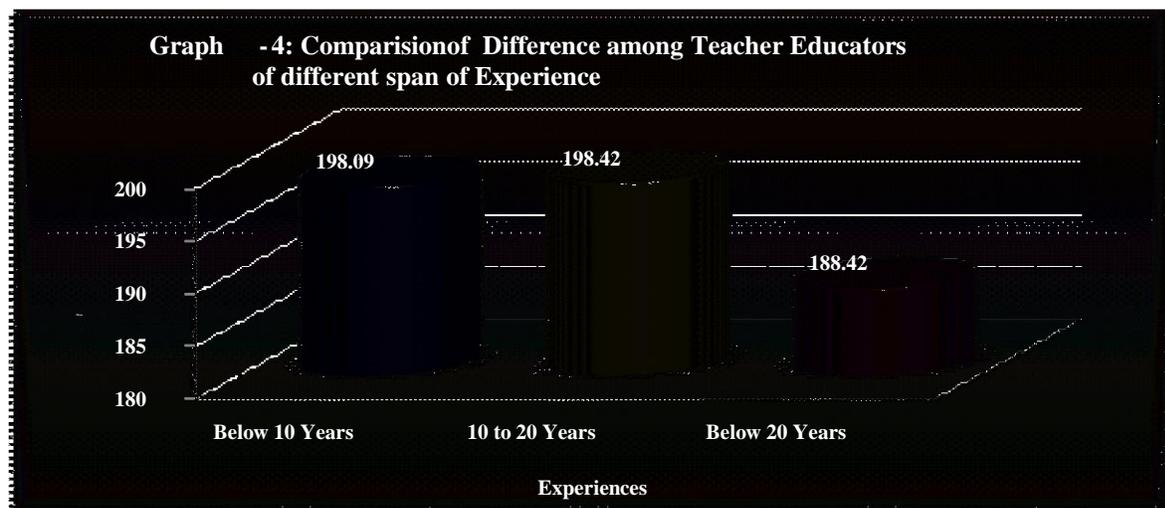
Objective-4: To study the Attitude of Teacher educators towards MOOCs in relation their Experience

Table - 4: Difference among Teacher educators of different span of Experience.

Experience	N	Mean	Sources of variation	Sum of Squares	df	Mean Square	F	Sig.
Below 10 Years	65	198.09	Between Groups	29.262	2	14.631	0.008	P-Value = 0.992 Not-Significant
10 to 20 Years	65	198.42	Within Groups	2321763.79	1197	1939.65		
Below 20 Years	70	188.42	Total	2321793.05	1199			

(The table value of 'F' is 3.00, S - Significant, NS - Not Significant)

It is inferred from the above table that the calculated 'F' (0.008) value is less than the table value (3.00) for df 1199, at 5% level of significance. Hence the respective null hypothesis H_{07} is accepted i.e. there is no significant difference between the mean scores of different span of Experience Teacher educators towards MOOCs. Table also shows that Below 10 Years, 10 to 20 Years and Below 20 Years Teacher educators are having almost same Attitude towards MOOCs.



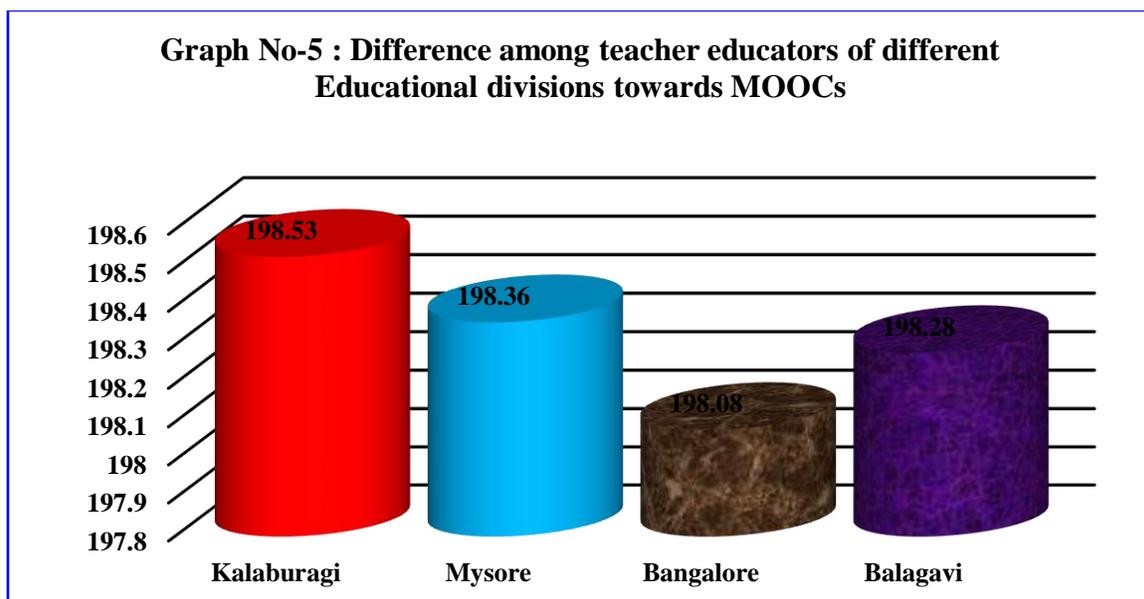
Objective-5: To study the Attitude of Teacher educators towards MOOCs in relation to TEIs of Educational divisions

Table - 5: Difference among Teacher educators of different Educational divisions towards MOOCs

Divisions	N	Mean	Sources of variation	Sum of Squares	df	Mean Square	F	Sig.
Kalaburagi	50	198.53	Between Groups	30.348	3	10.116	0.005	P-Value = 0.999 Not-Significant
Mysore	50	198.36	Within Groups	2321762.71	1196	1941.27		
Bangalore	50	198.08	Total	2321793.06	1199			
Balagavi	50	198.28						

(The table value of 'F' is 3.00, S - Significant, NS - Not Significant)

It is inferred from the above table that the calculated 'F' value is less than the table value (3.00) for df 1199, at 5% level of significance. Hence the respective null hypothesis H_{148} is accepted i.e. there is no significant difference between the mean scores of Teacher educators working in TEIs of different Educational divisions towards MOOCs. Table also shows that Kalaburagi, Mysore, Bangalore and Balagavi Educational division Teacher educators are having almost same Attitude towards MOOCs.



11. Findings:

The results from the statistical analysis led to the following conclusions with respect to the Attitude of Teacher educators towards MOOC for each statement:

12. Conclusion:

This study depicts that there is no significant difference among Teacher educators with respect to locale/type, experience and educational divisions of Karnataka state. This study further reveals that Female Teacher educators, Arts subject Teacher educators, Urban area Teacher educators and Associate Professor/Professor of TEIs have more positive Attitude than Male Teacher educators, Science subject Teacher educators, Rural area Teacher educators and assistant professors of TEIs.

To conclude it can be said that the use of MOOCs flourish impressions and freedom amongst learners and would lead to quality in teaching learning process and continuous self development. For the better use of MOOCs by the teacher educator and management should inculcate positive Attitude towards MOOCs and also make available necessary technological equipment in educational institutions.

13. Limitations of the study:

The following limitations were considered in the content of present study.

- 1) The study was limited to Attitude of Teacher educators institutions only.
- 2) The study was limited to Teacher educators who were teaching in TEIs only.
- 3) It was further limited to TEIs of Karnataka state only.

14. Recommendations:

In the luminous of the findings of the current study is urged that TEIs and colleges may use MOOCs as a possible and efficient approach of quality of education and training at a low cost. MOOCs may be used not only to convoy Teacher educators at higher education level but the outlook may be extending to teacher training institutes. Teacher educators

may be inspired and trained to design, develop and deliver MOOCs not only for teacher training but in all other subjects and age levels.

It is also recommend that MOOC creators should develop activities, chats, and assignments, forums to inspire the participants to develop an online community and communicate with other fellow learners. These communities authorize to confirm knowledge through exchange of wisdom, ideas, information etc in the MOOC environment. Also ensure the availability of technological devices to the Teacher educators who are in rural areas. There is a necessity to provide rewards and recognition for the participants who participate sincerely in these online communities.

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