



ISSN Print: 2394-7500  
ISSN Online: 2394-5869  
Impact Factor: 8.4  
IJAR 2023; 9(6): 357-363  
[www.allresearchjournal.com](http://www.allresearchjournal.com)  
Received: 12-04-2023  
Accepted: 05-05-2023

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## A study on teachers' attitude towards e-learning in Cuttack District, Odisha

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**DOI:** <https://doi.org/10.22271/allresearch.2023.v9.i6e.11009>

### **Abstract**

In this digital age having a sound attitude towards e-learning is very important nowadays. As we know society is dynamic so a teacher should also be dynamic to integrate all these changes in education and accordingly can meet the need and demand of society most importantly the learners who are the heart of an education system. So it is important to understand the attitude of teachers towards e-learning. The present study made an effort to study the attitude of secondary school teachers towards e-learning. Descriptive survey method was followed for the study. This research aims to investigate and compare the attitude of secondary school teachers towards e-learning with regard to gender, locale, and type of school. The study was administered upon 64 secondary school teachers of Cuttack district who were chosen randomly. Test of e-learning related attitude (TelRA) scale developed by D.H. Kisanga (2016) was administered to respondents for obtaining the required data. Percentage, Mean, Standard deviation and T-Test were used for analysis and interpretation of data followed by some graphs. The findings of the study revealed that majority of teachers (71.9%) having moderate level of attitude towards e-learning. With regard to gender it was found out that there exists no significant difference in attitude of secondary school teachers towards e-learning. With respect to locale, teachers those who belong to urban area having favorable attitude towards e-learning as compared to that of rural area secondary school teachers. However In relation to the type of school, the study revealed that there is a significant difference in attitude of govt. and non govt. secondary school teachers towards e-learning and that goes to govt. secondary school teachers those who are having more favorable attitude towards e-learning as compared to that of non govt. secondary school teachers.

**Keywords:** Attitude, teachers, students/learners, and e-learning

### **Introduction**

Education is the key through which we can nurture the innate potentialities of an individual and it shapes the personality of an individual but it depends upon to what extent we are successful in providing quality education to our learners. Quality education depends upon many factors like quality content, quality environment, quality teachers etc. Quality input leads to quality outcome. So it should be the ultimate duty of everybody not only the teachers but also parents and community to at least make a try in availing all those things through which our maximum to maximum of students can be benefitted.

Education is now witnessing the use of technology to facilitate the teaching learning processes. In this digital age having knowledge about technological aids and their uses in education is very important as it helps one to design the learning experiences for making the class engaging as well as interactive. Now coming to the term e-learning, it can also be referred to as online learning or electronic learning. If learning is happening with the integration of technology then that can be termed as e-learning. Further e-learning can happen both inside and outside of the classroom. There are different platforms, media through which we can make the use of e-learning. It is one of the means through which we can eliminate the geographical barriers and reach to our learners within a second and make learning accessible to everyone out there. There are different kinds of e-learning like synchronous, asynchronous, m-learning, blended learning, etc. Teachers are generally familiar with the traditional teaching but now with the passage of time they have to be techno savvy, so that they can be able to meet the need of this ever changing society.

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### Rationale of the study

It is believed that Student would learn and retain better by visualizing and hearing a thing simultaneously or when they are being taught with the help of various technological aids. Hence it should be the utmost priority of teacher to teach in a way in which learners are interested. Again E-learning can happen both inside and outside of the classroom. Of course it can't replace the traditional classroom culture. It is just a substitute to make the teaching learning process more effective and unhindered as well. As at a certain point there will be a need of the same like during COVID crisis schools, colleges were being shut and we all were being shifted from physical to virtual: "A shift to online learning" and it was only a medium through which teachers were able to carry out the teaching learning process. It was seen that many teachers who were not familiar with such online platforms faced many difficulties during online session but in the course of time some of them however able to manage. Hence it is the need of this hour to know the teachers' attitude towards e-learning as they are the one who would initiate this process in future. The National Education Policy (2020) [8] has also recommended about some key initiatives to promote online education that how we can make change in the pedagogical aspect to deal with the online learning. Choudhury and Sharma (2020) [2] conducted a study on teachers' attitude towards e-learning in WB, India in post COVID-19 era and it was observed that majority of teachers belonged to urban area and having science discipline had favorable attitude towards e-learning. Kar (2020) [3] conducted a study on teachers' attitude towards e-learning during COVID-19 lockdown and reported that the perception of female teachers towards e-learning were more positive than that of the male teachers and the faculty members who had less teaching experience had a stronger perception than those with more teaching experience towards e-learning. The study reported by Nachimuthu (2020) [7] revealed that there was no significant difference in between the male and female student teachers attitude towards e-learning. Aguskani (2020) [1] made a study aiming to assess the perception of faculty member towards alternative teaching practices (E-learning) during COVID-19 and reported that faculties were very comfortable with regular classroom teaching rather than e-learning practices. Kumar (2017) [4] conducted a descriptive study and reported that 70% of teacher educator having favorable attitude towards e-learning and it was attributed to the influence of variables like locality of colleges and gender. Mahajan (2016) [6] studied on attitude of teachers towards using of technology in teaching and the study revealed that 25% teachers had only favorable attitude towards e-learning and there was no significant difference in the attitude of teachers' towards e-learning in relation to their gender and teaching experience. Subhramani (2014) [9] reported that variables like gender, locality had no significant contribution towards the attitude of teachers for e-learning. Based on these above studies, it is noticed that there were so much variation in the findings. So in order to reach at a decisive conclusion the present study is conducted and designed to study the attitude of secondary school teachers towards e-learning in Cuttack district, Odisha.

### Objectives

**The objectives of the present study are as follows:**

1. To find out the level of attitude of secondary school teachers towards e-learning.
2. To compare the attitude of male and female secondary school teachers towards e-learning.

3. To compare the attitude of urban and rural secondary school teachers towards e-learning.
4. To compare the attitude of govt. and non govt. secondary school teachers towards e-learning.

### Hypotheses

**The following null hypotheses are framed for the present study is as follows:**

1. There is no significant difference in attitude of male and female secondary school teachers towards e-learning.
2. There is no significant difference in attitude of urban and rural secondary school teachers' towards e-learning.
3. There is no significant difference in attitude of govt. and non govt. secondary school teachers towards e-learning.

### Delimitation of the study

**The present study has been delimited by the following aspects:**

1. The study will be limited to only teachers of secondary schools.
2. The study will be restricted to only ten secondary schools of Banki sub-division.
3. The teacher sample has been confined to only sixty four secondary school teachers.

### Methodology of the Study

- **Research Method:** For the present study the researcher decided to adopt the descriptive survey method. In order to meet the objectives of the present study the descriptive method was found useful enough for gathering data about attitude of secondary school teachers towards e-learning.
- **Population:** In the present study, all the secondary school teachers of rural as well as urban secondary schools of Cuttack district affiliated to Board of Secondary Education constitute as the population of the study.
- **Sample:** In the present study, the sample was drawn from the secondary school teachers of Banki sub-division. Stratified sampling was followed by the researcher while selecting samples. The number of schools from both urban and rural area chosen by the researcher was ten (urban-4 and rural-6). From urban area two Govt. and two Non-govt. school and from rural area two Govt. and four Non-govt. school was taken for the study. Sixty four teachers were selected as sample (M=32, F=32).
- **Tool used:** To collect the required data for the present study the researcher used an attitude scale towards e-learning developed and standardized by Dalton H. Kisanga. Usage of Test of e-learning related attitude (TeLRA) scale has been fruitfully conducted over 64 teachers (M=32, F=32) from two blocks of Banki Sub-division to study their attitude towards e-learning. TeLRA scale had been used earlier in Tanzanian Higher learning institutions and West Bengal as well. The purpose of this study was to examine, establish and validate the attitude of secondary school teachers towards e-learning in the Odisha scenario. The scale contains thirty six statements out of which seventeen are positive and rest is negative statements. TeLRA scale is a four point scale viz. strongly disagree, Disagree, Agree and strongly agree. The scale has both positive as well as negative items.

**Table 1:** Scoring System

Sl. No.	Type of items	Strongly Disagree	Disagree	Agree	Strongly Agree
I	Positive	1	2	3	4
II	Negative	4	3	2	1

The minimum and maximum possible scores are 36 to 144.

**Techniques of data analysis and interpretation**

To know the participants overall attitude first of all, their responses were all scored by following the 4-point scale scoring procedure as mentioned in the table 1 and organized as well in MS excel for calculation purpose. Then the required descriptive (Mean, SD, percentage analysis) as well as inferential statistics (T-Test) were opted by the researcher followed by some bar graphs depicting mean scores of teachers on the basis of level of attitude, gender, locality, type of school to draw a conclusion regarding overall attitude of participants towards e-learning.

**Results and Discussion**

**1. To find out the Level of attitude of secondary school teachers towards e-learning:**

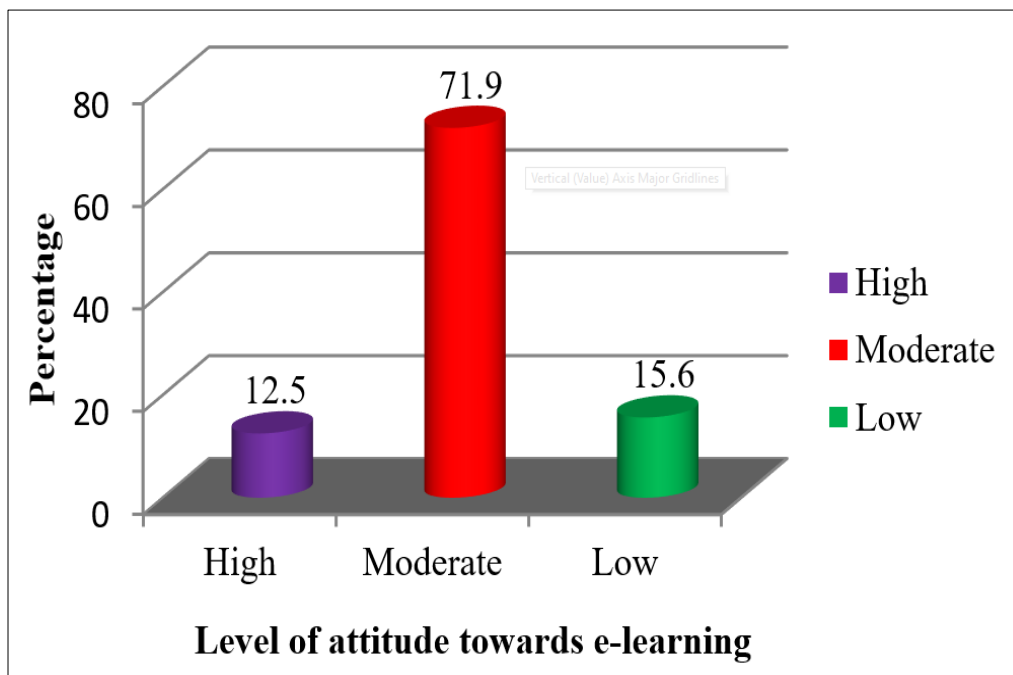
To study the level of attitude of secondary school teachers towards e-learning the mean and standard deviation of the scores on attitude towards e-learning were calculated and they were categorized into three levels on the basis of their mean and standard deviation of the scores. As such the M+1SD, M±1SD, M-1SD is considered as having high, moderate, and low level of attitude. The data related to this aspect have been presented in the Table-2.

**Table 2:** Level of attitude of secondary school teachers towards e-learning

Total no. of teachers	Mean	SD	No. of teachers with percentage		
			High (107 and above)	Moderate between (91-106)	Low (90 and below)
64	98.44	8.69	8 (12.5%)	46 (71.9%)	10 (15.6%)

Table-2 reveals that out of 64 teachers' only 12.5% teachers having high level of attitude towards e-learning. The percentage of teachers are falling between the category of having moderate level of attitude is 71.9% and 15.6% of teachers having low level of attitude towards e-learning. The

teachers belong to the category of having moderate level of attitude means they are not having that so much high or low level of attitude towards e-learning. From the fig-4.1, again it can be seen that majority of secondary school teachers are showing moderate level of attitude towards e-learning.



**Fig 1:** Level of attitude of secondary school teachers towards e-learning

**2. To compare the attitude of male and female secondary school teachers towards e-learning:**

To test the hypothesis that there is no significant difference in attitude of male and female secondary school teachers

towards e-learning. In order to do this the mean scores obtained were subjected to T-Test and the result obtained there in is presented in the table -3.

**Table 3:** Significance of mean difference on attitude scores of male and female secondary school teachers towards e-learning

Category	N	Mean	SD	DF	SE <sub>D</sub>	T-Value	Remarks
Male	32	99.47	7.9	62	2.16	1.0561	Non-significant
Female	32	97.19	9.32				

Degree of freedom: 62

An analysis of the results presented in the table reveals that the obtained T-Value for the difference in attitude of male and female secondary school teachers towards e-learning is found to be 1.0561. When this t-value was subjected to the testing of its significance, it was found that the obtained t-value 1.0561 is less than the tabulated t-value that is, 2.00 at 0.05 level of significance with 62 degree of freedom.

Therefore, the result is non-significant and the stated hypothesis is not accepted. Hence it is concluded that there is no significant difference in the attitude of male and female secondary school teachers towards e-learning. From the mean scores it was found out that the attitude of male secondary school teachers towards e-learning is higher than that of female.

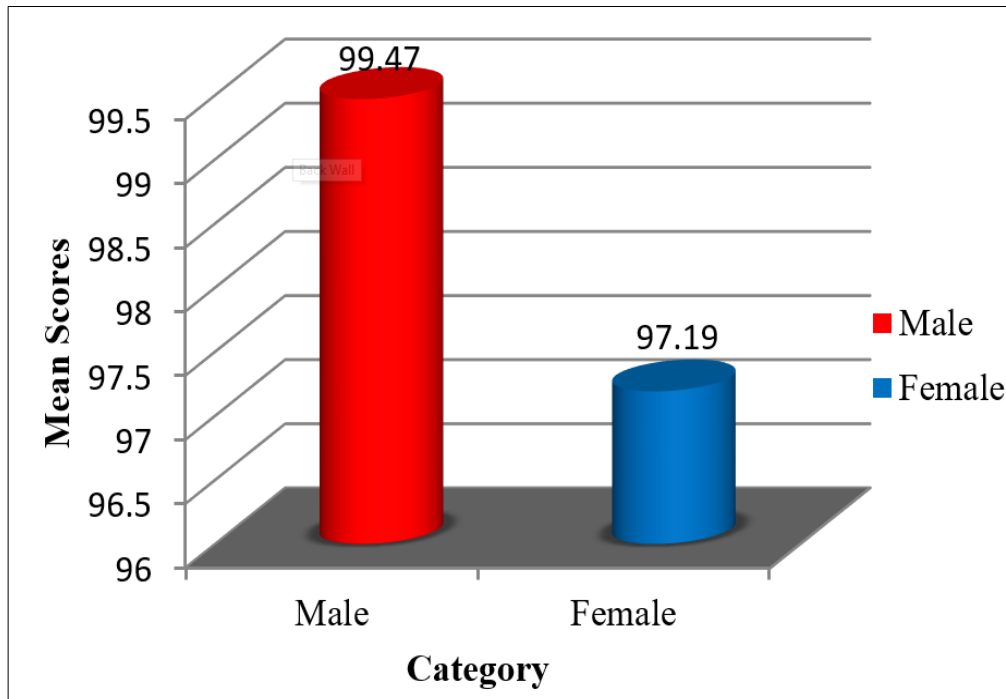


Fig 2: Mean scores of attitude of male and female secondary school teachers towards e-learning.

**3. To compare the attitude of Urban and Rural secondary school teachers towards e-learning**

To test the hypothesis that there is no significant difference in attitude of Urban and Rural secondary school teachers

towards e-learning. In order to do this the mean scores obtained were subjected to T-Test and the result obtained there in is presented in the table-3.

Table-3: Significance of mean difference on attitude scores of Urban and Rural secondary school teachers towards e-learning

Category	N	Mean	SD	DF	SE <sub>D</sub>	T-Value	Remarks
Urban	32	101.13	6.32	62	2.079	2.5409	Significant
Rural	32	95.84	9.91				

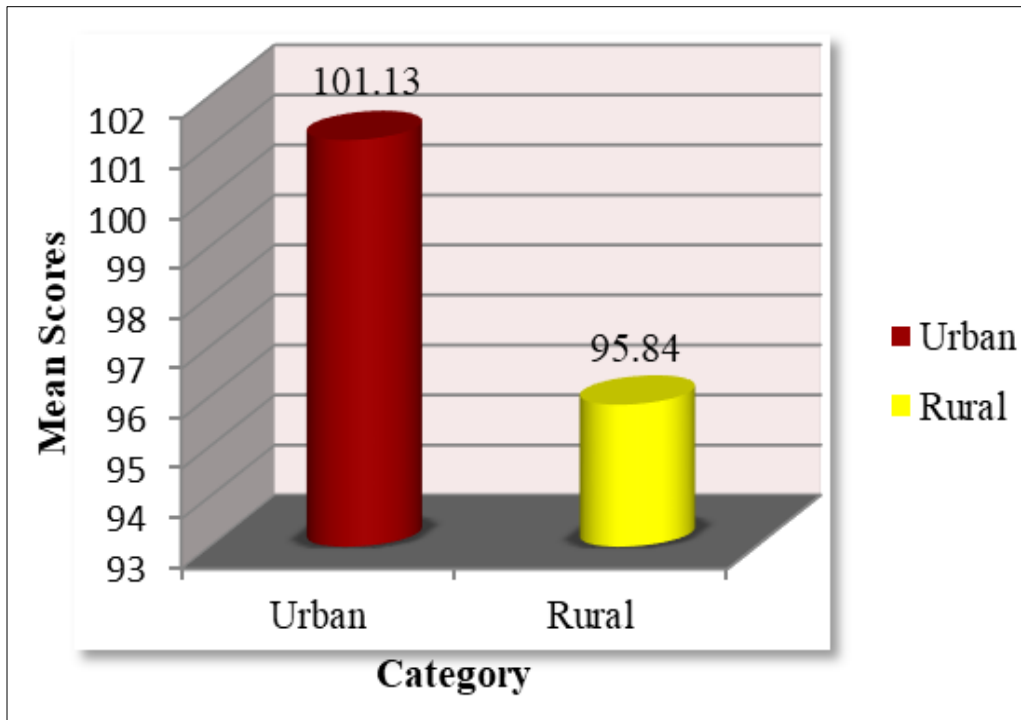
\*\*\*Significant at 0.05 level of confidence

The results mentioned in the above table have been analyzed and it reveals that the obtained t-value for the difference in attitude of Urban and Rural secondary school teachers towards e-learning is found to be 2.5409. When this t-value was subjected to the testing of its significance, it was found that the obtained t-value 2.5409 is greater than the tabulated t-value that is, 2.00 at 0.05 level of significance with 62 degree of freedom. Therefore, the hypothesis that there is no significant difference between the attitude of urban and rural secondary School teachers towards e-learning is rejected and it is concluded that there exists a significant difference in the attitude of urban and rural secondary school teachers towards e-learning.

From the mean scores it was found that the attitude of urban secondary school teachers towards e-learning is higher than that of rural secondary school teachers.

**4. To compare the attitude of govt. and non govt. secondary school teachers towards e-learning**

To test the hypothesis that there is no significant difference in attitude of govt. and non govt. secondary school teachers towards e-learning. In order to do this the mean scores obtained were subjected to T-Test and the result obtained there in is presented in the table 4.4.



**Fig 3:** Mean scores of attitude of urban and rural secondary school teachers towards e-learning

**Table 4:** Significance of mean difference on attitude scores of govt. and Non-govt. secondary school teachers towards e-learning

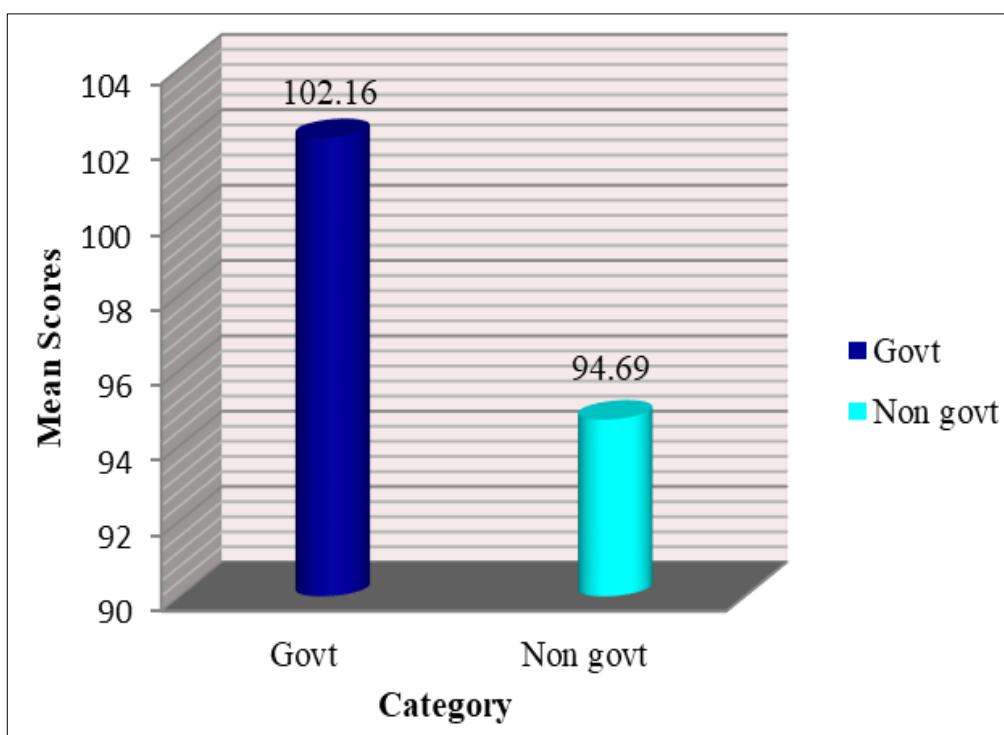
Category	N	Mean	SD	DF	SE <sub>D</sub>	T-Value	Remarks
Govt.	32	102.16	6.71	62	1.983	3.7663	Significant
Non Govt.	32	94.69	8.99				

\*\*\*\*Significant at 0.05 level of confidence

An analysis of the results presented in the table reveals that the obtained t-value for the difference in attitude of govt. and non govt. secondary school teachers towards e-learning is found to be 3.7663. When this t-value was subjected to the testing of its significance, it was found that the obtained

t-value is greater than the tabulated t-value that is, 2.00 at 0.05 level of significance with 62 degree of freedom. Therefore, the hypothesis that there is no significant difference between the attitude of govt. and non govt. secondary School teachers towards e-learning is rejected and it is concluded that there exists significant difference in the attitude of govt. and non govt. secondary school teachers towards e-learning.

From the mean scores it was found that the attitude of govt. secondary school teachers towards e-learning is higher than that of non govt. secondary school teachers.



**Fig 4:** Mean scores of attitude of govt. and non govt. secondary school teachers towards e-learning.

## Major Findings

The present study was aimed at to test the tentative hypotheses and to achieve the objectives of the study. The below findings and discussions are in line with the objectives and hypotheses of the study.

### The following findings are as follows:

- From the entire study the researcher has gotten varied responses from the side of teachers which is directly showing their overall level of attitude towards e-learning. The test has shown that the teachers are having moderate level of attitude that is not of so much high or low towards e-learning. On an average 71.9% teachers have a moderate level of attitude towards e-learning. So it can be said that majority of secondary school teachers of Cuttack district have favorable attitude towards e-learning.
- It was found out that only 12.5% of teachers on an average having high level of attitude towards e-learning as the study has shown that they are having a good exposure to technologies and at the same time there are very less percentage of teacher that is 15.6% who are showing very low level of attitude towards e-learning due to lack of infrastructural facilities as well as they are not that much familiar towards the use of technological resources.
- From the study it was found out that there is no significant difference in the attitude of male and female secondary school teachers towards e-learning. Although the mean score of male secondary school teachers is a bit higher than the female secondary school teachers but when it was subjected to test the significance of the mean, the difference between the mean scores came out to be statistically non-significant. Hence it can be said that the male or female secondary school teachers are showing more or less same level of attitude towards e-learning.
- Also from the study the researcher has found out that there exists a significant difference in the attitude of urban and rural secondary school teachers towards e-learning. Again the mean scores of urban secondary school teachers towards their attitude in e-learning are higher than that of rural secondary school teachers.
- There was an objective to compare the attitude of govt. and non govt. secondary school teachers' attitude towards e-learning. So keeping in view the objective when the study was carried out the researcher witnessed that the mean score of govt. secondary school teacher is much higher than that of non govt. secondary school teachers and when it was subjected to test of its significance that if the difference between the mean scores are statistically significant or not and at the end the differences was found out to be extremely statistically significant.

## Educational Implications

**Every research has some educational implications. Some of the important educational implications to this study are mentioned below.**

- In this digital age the integration of technology in education is much important nowadays. So to promote e-learning teachers all around the globe should be encouraged to deal with these all latest technologies so that they can be updated about their uses and

accordingly they can be more skilled to facilitate all of our learners.

- In order to enhance the attitudinal level of teachers various kind of workshops, webinars, seminars, certificate programs, etc. can be organized so that they can make themselves up-to-date with all the innovative techno pedagogical skills.

## Conclusions

**On the basis of findings and analysis we can draw some conclusions here in the following manner.**

- The mean scores of male and female secondary school teachers have been found to be so close that it can be interpreted like they are having more or less similar kind of attitude towards e-learning which is against some of the prior studies conducted in various parts of India.
- Our study supports that there is a significant difference in attitude of urban and rural secondary school teachers towards e-learning and the mean scores of urban secondary school teachers have been found to be considerably higher than that of the rural secondary school teachers. This much difference can be due to kind of infrastructural facilities available in urban and rural school.
- Also our study supports that there exists a significant difference in the attitude of govt. and non govt. secondary school teachers towards e-learning and the mean scores of govt. secondary school teachers have been found to be much higher than that of non govt. secondary school teachers. As we know many govt. schools across Odisha are now being gradually converted into smart schools under '5T plan'. So they are now getting all the exposures to manipulate all this technological resources for facilitating students. Again it can't be ignored that all the govt. schools are somehow getting financial assistance to promote this online education where as in case of non govt. school it is not that much. Hence we can expect that it could be a reason that our govt. secondary school teachers are showing reasonable attitude towards e-learning than non govt. secondary school teachers.
- Majority of secondary school teachers are having moderate level of attitude towards e-learning that is not so much high or low. So again the attitude of secondary school teachers can be uplifted by organizing various kinds of workshops and all.

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