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## SATISFACTION OF TEACHERS IN THE ONLINE TEACHING-LEARNING INITIATED IN KERALA AT THE PANDEMIC OUTBREAK OF COVID-19

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### Abstract:

In the pandemic outbreak of Covid-19, the social institutions altogether are facing a dilemma. The prolonged and necessitated social distancing insists the educational institutions take over the online platform for the teaching-learning program. The objective of the study was to analyze the effect of demographic factors like age, gender, school management, and teaching level on the satisfaction of teachers in the recently initiated teaching-learning program in Kerala, India. The study aimed at the satisfaction of teachers in three components. The study employed a mixed methodology. Data is collected through a self-administered survey questionnaire prepared and validated by the investigators. The target population consists of school teachers in Kerala, India. Purposive random sampling was used for the collection of data from 252 teachers. The results showed that the majority of the teachers are satisfied with the program. The study identified no significant dependence on age, gender, and school management type with the satisfaction of teachers in the recently initiated teaching-learning program but a substantial relation to the teaching level. The findings on positive outcomes in online teaching and learning practices can foster the well administration of the program. Challenges in the online context indicated the need for improvement in infrastructure and cognitive support. Recommendations are made to equip the program in the long run.

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### 1.0 Introduction:

"Education, an instrument of change, is really one of the major means available to a civilized society for improving the lot of its members"

- Nelson Mandela

The influence of education as an instrument is envisaged in the way of instruction, discipline, and harmonious development of the physical, intellectual, aesthetic, social, and spiritual power of the human being. In the effectiveness of the educational paradigms, the teachers' importance ranges over encouraging students to draw real-life connections, making the learning strategy in a funny way, changing the scenario of life, and emancipating man from ignorance.

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In the technologic era, the traditional classroom teaching method finds an alternative platform for delivering the teaching-learning experience in the modern world. Addressing the two critical questions, "Does the importance of teacher decrease as the technology grows?" and "What is the role of teachers in e-learning systems?" are very crucial in assessing the productivity of online learning (Johnson, 1991). In this age, the usage of information processing software and communication methods are improved a lot. Hence, the needs of the students are also changed within changing life that technology lets us. The workplace needs, especially in teaching, also changed with the availability of technology. (Badia, Garcia, Meneses, 2014).

In the online classroom, the teachers' role is transforming as a technology specialist, e-learning designer, content coach, social director, and managing respondent (Taylor-Massey, 2015). Research findings indicated that flexibility, communication, and community, success, and support are the three primary influential factors of teachers' satisfaction. Teachers are more satisfied when they are provided with flexibility in what, how, when, and where they teach (Velasquez, Graham, & Osguthorpe, 2013). It is quite evident that there is a positive correlation between face-to-face learning activates and teachers' satisfaction (Borup & Stevens, 2016). There is a physical separation between the teacher and students in the online learning platform, which makes some as-pects of teaching more time-consuming. Even then, this separation provides teachers with flex-ibility in when and where they work, which can positively influence their levels of satisfaction. In many surveys, teachers commonly responded that their favorite part of teaching on-line was the provision to have more one-on-one communication with students than was possible in face-to-face classrooms (Borup & Stevens, 2016).

The unexpected outbreak of the COVID-19 and the inevitable social distancing caused a drastic change in the social interactions of human life. Around the globe, most nations have temporarily closed educational institutions in an attempt to contain the outspread of the pandemic. The United Nations Educational, Scientific, and Cultural Organisation (UNESCO) report says that the worldwide shutdown of the schools and campuses has an impact on over 60% of the global student population. As a containment measure, several other countries opted for localized closure impacting another million of learners. The report warns that the COVID-19 pandemic will adversely affect over 290 million students across 22 countries. The report reveals that about 32 Crores students are affected in India, including those in schools and colleges (United Nations Educational, Scientific, and Cultural Organisation [UNESCO],2020). The United Nations Framework for the immediate socio-economic response to COVID-19 warns that "The COVID-19 pandemic is far more than a health crisis: it is affecting societies and economies at their core. While the impact of the pandemic will vary from country to country, it will most likely increase poverty and inequalities at a global scale, making the achievement of Sustainable Development Goals (SDGs) even more urgent" (United Nations Development Programme [UNDP], 2020).

The first COVID-19 positive case was reported in Kerala on 30 January 2020 (World Health Organisation [WHO],2020). Hence, from the beginning of the calendar year, all the educational institutions shut down the campuses as an early attempt to prevent the outspread of the pandemic. It was the time of ending the academic year and board examinations, annual examinations, entrance examinations of various professional courses, and Universities. Many of the examinations were postponed, and the school level annual examinations were canceled. The closure of the educational institutions mainly affected the structure of the school system, which includes the teaching, learning, and assessment methodologies as a whole. In the new academic year, all the institutions in the state are forced to initiate online teaching-learning.

The Government of Kerala has decided to reopen the educational institutions by 01 June 2020 (Chanda, 2020). As the social circumstances are not in favor of regular classroom teaching-learning, it was decided to reschedule the learning and introduce an online learning platform. Under the guidance of the Director, General Education, Government of Kerala, four agencies are assigned to prepare the online module of curricular contents for the first standard to twelfth standard under the Kerala Syllabus. The State Council of Educational Research and Training (SCERT), Kerala Infrastructure and Technology for Education (KITE), SamagraShiksha Kerala (SSK), and State Institute of Educational Technology (SIET) are the government agencies preparing the online modules. The academic part is guided by SCERT and technical coordination is doing by KITE. As per the pre-announced schedule, the online classes are broadcasting through KITE VICTORS Channel. The live streaming of all the online courses is publishing through KITE VICTORS Website, Mobile Phone Apps, and the social media pages. The government has issued guidelines to monitor the availability and accessibility of the students to the learning program and the assessment methods. The government has permitted to access other online platforms and online modules, which are designed and administered by the individual institutions.

The main objective of the present study was to examine the Teachers' satisfaction relationships in online teaching-learning initiated in Kerala, India, at the time of the pandemic outbreak of COVID- 19. The study intended to identify which aspects of the online learning program are sources of satisfaction and dissatisfaction. The study analyses whether there exists a relation between age, gender, school management type, and levels in which the teachers are handling class with the teachers' satisfaction. The result of this study will provide a clear picture of the recently implemented online teaching-learning program in Kerala. It will enable the authorities and policy-makers to develop and implement policies towards the reinforcement of the system adopted for the online learning, improvement of the undesirable conditions.

## 2.0 Methodology:

**Design:** The study adopted a mixed methodology. Surveys and interviews were used for the study.

**Sample:** The study was conducted on the population of the school teachers from the primary level to higher secondary level in Kerala, India. Purposive random sampling technique was adopted to collect data from the teachers. 252 teachers from 13 districts of the state were responded to the study. The investigator interviewed 10 teachers from the primary level to higher secondary.

**Tool:** Questionnaire on Satisfaction of Teachers and Interview schedule to the teachers prepared by the investigators were used for the study.

**Statistical Techniques:** Percentage Analysis, Chi-square ( $\chi^2$ ) Test.

**Percentage Analysis:** The percentage of satisfaction in the sample was estimated using the conventional method. The sample was classified in to four categories on the basis of level of satisfaction. Students were classified as more satisfied, satisfied, and less satisfied, respectively.

**Chi-square ( $\chi^2$ ) Test:** Chi-square ( $\chi^2$ ) Test enables to explain the association of two attributes by proceeding with a null hypothesis. The Chi-square ( $\chi^2$ ) is calculated as

$$\chi^2 = \sum \frac{(O_i - E_i)^2}{E_i}$$

Equation 1

$O_i$  = observed frequency

$E_i$  = expected frequency

If the calculated value of  $\chi^2$  is less than the table value at a certain level of significance for given degrees of freedom, it concludes that null hypothesis qualifies means that the two attributes are independent. But if the calculated value of  $\chi^2$  is greater than its table value, it proves that null hypothesis does not hold good which means the two attributes are associated.

In the case of contingency table the degrees of freedom (d.f) is worked out as follows:

$$d.f = (c - 1)(r - 1)$$

Equation 2

Here 'c' is the number of columns and 'r' is the number of rows of the table.

### 3.0 Major Findings:

The score of satisfaction is calculated for each teacher by assigning three options to the items in the questionnaire, which in turn carries a range of 0 to 2 score. Hence the minimum and maximum score that a teacher can achieve is 0 and 52 respectively. In the present study, the lowest score recorded was 15, and the highest being 47. For the classification of the level of satisfaction, the satisfaction scores have been divided into four categories, namely below average (0-12 scores), average (13-25 scores), High (26-38 scores), and very high (39-51 scores). The classification having a class interval of 13 is rational and justifiable considering the nature of the study. The percentage analysis of the satisfaction of the teachers is noted in Table 1.

**Table 1:Details of the percentage of teachers with different levels of satisfaction**

Distribution Criteria	Observed Frequency	Percentage of the Respondent
Below Average	0	0%
Average	32	13%
High	174	69%
Very High	46	18%
Total	252	100%

Source: Computed by the authors

Table 1 showed that the majority of the teachers are experiencing a high level of satisfaction. At both extremes, the response frequency is visibly low.

The analysis of the satisfaction of teachers with the demographic factors was done with the chi-square statistics based on both the observed and expected frequency of teachers' satisfaction.

The chi-square test analyzes the significance in the relation of age with the level of satisfaction of teachers is presented in Table 2.

**Table 2: Distribution of Satisfaction in Online teaching among Different Age Groups**

Job Satisfaction	Frequency over Age					$\chi^2$
	Upto 30 years	31-40 years	41-50 years	51 years or	Total	
<b>Below Average</b>	0 (0)	0 (0)	0 (0)	0 (0)	0	5.99
<b>Average</b>	6 (3.17)	14 (16.38)	10 (10.16)	2 (2.29)	32	
<b>High</b>	14 (17.26)	89 (89.07)	56 (55.24)	15 (12.43)	174	
<b>Very High</b>	5 (4.56)	26 (23.55)	14 (14.60)	1(3.29)	46	
<b>Total</b>	25	129	80	18	252	

Source: Computed by the Authors (Figures in parenthesis indicate expected frequency)

The degree of freedom for the contingency table with 4 columns and 4 rows is 9. The table value of  $\chi^2$  for 9 degrees of freedom at 0.05 level of significance is 16.92. The calculated value of is 5.985 at 9 degrees of freedom. Since the calculated value of  $\chi^2$  is less than the tabulated value, it is evident that there is no significant relationship between the Satisfaction of teachers in Online Teaching Learning with Age.

The chi-square test analyzing the relation between the satisfaction of teachers with Gender is mentioned in Table 3.

**Table 3: Distribution of Satisfaction in Online teaching between Gender Groups**

Job Satisfaction	Frequency over Gender				$\chi^2$
	Male	Female	Third Gender	Total	
<b>Below Average</b>	0 (0)	0 (0)	0 (0)	0	3.82
<b>Average</b>	20 (15.49)	12 (16.51)	0 (0)	32	
<b>High</b>	78 (84.24)	96 (89.76)	0 (0)	174	
<b>Very High</b>	24 (22.27)	22(23.73)	0 (0)	46	
<b>Total</b>	122.00	130.00	0.00	252	

Source: Computed by the Authors (Figures in parenthesis indicate expected frequency)

The degrees of freedom for the contingency table with 3 columns and 4 rows is 6. The tabled value of  $\chi^2$  for 6 degrees of freedom at 0.05% level of significance is 12.59. The calculated value of  $\chi^2$  is 3.818 at 6 degrees of freedom. Since the calculated value of  $\chi^2$  is less than the tabulated value, it is clear that there is no significant relationship between the Satisfaction of teachers in Online Teaching Learning with Gender.

The chi-square test analyzing the relation between the satisfaction of teachers with the School Type is mentioned in Table 4.

**Table 4: Distribution of Satisfaction in Online teaching between Management Groups**

Job Satisfaction	Frequency over School Type			$\chi^2$
	Government	Private	Total	
<b>Below Average</b>	0 (0)	0 (0)	0	3.40
<b>Average</b>	20 (15.87)	12 (16.13)	32	
<b>High</b>	86 (86.31)	88 (87.69)	174	
<b>Very High</b>	19 (22.82)	27 (23.18)	46	
<b>Total</b>	125	127	252	

Source: Computed by the Authors (Figures in parenthesis indicate expected frequency)

The degrees of freedom for the contingency table with 2 columns and 4 rows is 3. The table value of  $\chi^2$  for 3 degrees of freedom at 0.05% level of significance is 7.810. The calculated value of  $\chi^2$  is 3.403 at 3 degrees of freedom. Since, the calculated value of  $\chi^2$  is less than the tabulated value, it proves that there is no significant relationship between the Satisfaction of teachers in Online Teaching Learning with School type.

The chi-square test analyzing the relation between the satisfaction of teachers with the School Type is mentioned in Table 5.

**Table 5: Distribution of Satisfaction in Online teaching among Management Groups**

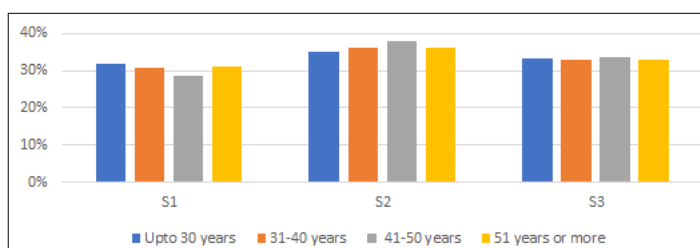
Job Satisfaction	Frequency over School Type					$\chi^2$
	LPS	UPS	HS	HSS	Total	
<b>Below Average</b>	0 (0)	0 (0)	0 (0)	0 (0)	0	21.97
<b>Average</b>	1 (4.83)	0 (5.59)	6 (6.10)	25 (15.49)	32	
<b>High</b>	25 (26.24)	38 (30.38)	35 (33.14)	76 (84.24)	174	
<b>Very High</b>	12 (6.94)	6 (8.03)	7 (8.76)	21 (22.27)	46	
<b>Total</b>	38	44	48	122	252	

Source: Computed by the Authors (Figures in parenthesis indicate expected frequency)

The degrees of freedom for the contingency table with 4 columns and 4 rows is 9. The table value of  $\chi^2$  for 9 degrees of freedom at 0.05% level of significance is 16.92. The calculated value of  $\chi^2$  is 21.97 at 9 degrees of freedom. Since the calculated value of  $\chi^2$  is greater than the tabulated value, it is evident that the Satisfaction of teachers in the Online Teaching-Learning differs significantly according to levels in which the teachers are handling classes.

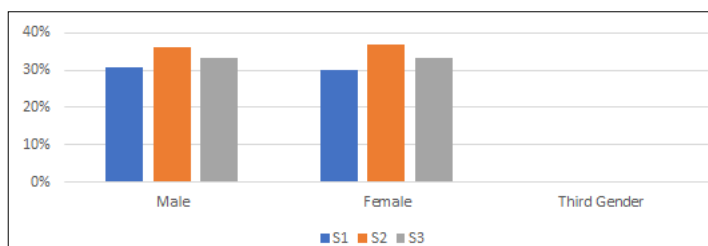
The satisfaction of teachers is assessed in three dimensions: General Awareness (S1), Administration (S2), and Evaluation (S3). The component-wise distribution of the scores of satisfaction of teachers based on the demographic groups is visualized below (Fig. 1, Fig. 2, Fig. 3 and Fig. 4) for better comprehension.

**Fig. 1: Satisfaction Scores vs Age**



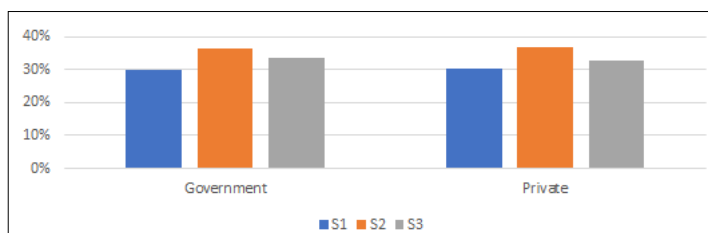
Source: Prepared by the Authors

**Fig. 2: Satisfaction Scores vs Gender**



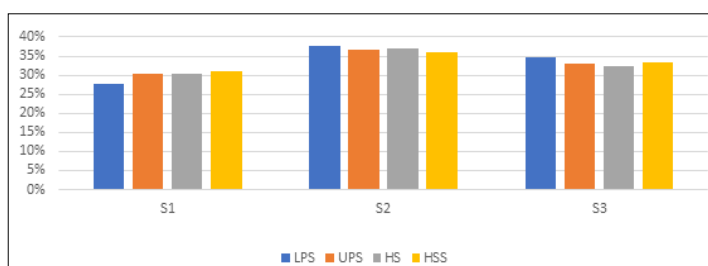
Source: Prepared by the Authors

**Fig. 3: Satisfaction Scores vs School Management**



Source: Prepared by the Authors

**Fig. 4: Satisfaction Scores vs Level of teaching**



Source: Prepared by the Authors

The component-wise visualization of the scores of satisfaction of teachers based on the demographic groups gives a clear picture that the majority of the teachers are satisfied in the three dimensions of satisfaction: General Awareness (S1), Administration (S2), and Evaluation (S3).

The interview with the teachers gave some more attributes about the satisfaction in the initial stage of the program. Teachers shared their experience of the advantage in utilizing the expertise of eminent teachers in the field and audiovisual experience of teaching. The lack of real-time attention to students and the digital divide faced by vulnerable communities in terms of infrastructure facilities is the main challenge in online learning. Many teachers worried that the program might fail to cater to the needs of below-average students. Some teachers treated the online teaching-learning program as a juncture necessity due to the pandemic period and were alarmed about the socialization process and character formation, which is to be developed in the classroom environment from the primary class. Teachers expressed their interest in being better trained with the usage of online platforms and the need for in-service training in this area for career advancements. Many teachers said that the COVID-19 pandemic period and the recent implementation of online teaching would be a milestone to proceed with reformation in the education sector.

#### **4.0 Conclusion:**

The main intention of the study was to examine the relationship between the demographic factor and satisfaction of teachers in the online teaching-learning initiated in Kerala in the outbreak of the COVID-19 pandemic. The findings of the study showed that the majority of teachers enjoy high satisfaction in online teaching-learning. The result revealed no significant relationship between age, gender, and school management system with the satisfaction of teachers in online teaching but found that the level at which the teachers handling classes has an influence on teachers' satisfaction. The interviews helped identify teachers' wish that the initiation of online teaching-learning during the pandemic period will be a breakthrough in Kerala's educational system in the Post-COVID era. It is expected that the study will provide some introductory clues to the academic fraternity for further detailed analysis in framing and re-framing the curricular strategies and education practice by addressing the glory of information technology in the long run.

The study was conducted over a limited sample of 252 teachers from 13 districts of the state, Kerala. As a preliminary investigation on the newly initiated learning strategy, the study results may not be generalized to other parts of the Country. The school of the other states of the country and other developing countries may be taken up to study the basic infrastructure availability in the school of the other states of the country and other developing countries may be taken up to study. With the day-to-day advancement of technology and going trends of education, follow-up studies is essential for the empirical validation of academic outcomes and ease of learning.



## References:

- Aggarwal, J.C.C. (2001). Landmarks in the history of modern Indian education (4th ed). New Delhi: Vikas
- Best, W.J., Kahn, J.V., Jha, A.K. (2017). Research in education. (10th ed). Pearson.
- Borup, J., Stevens, M.A. (2016). Factors Influencing Teacher Satisfaction at an Online Charter School: Journal of Online Learning Research (2016) 2(1), 3-22
- Chanda, P (2020 May 11). Kerala Schools likely to reopen on June 1, online Teacher Training Programme Launched. Retrieved from <https://www.timesnownews.com/education/article/kerala-schools-likely-to-reopen-on-june-1-online-teacher-training-program-launched/590110>
- Johnson, D.S. (1991). Productivity, the Workforce, and Technology Education. Journal of Technology Education. 2, 2.
- Nelson Mandela. (n.d). Retrieved from <https://www.indiatoday.in/education-today/featurephilip/story/why-education-is-one-of-the-most-powerful-weapons-to-transform-society-1579790-2019-09-02>.
- Nevio, B. (2002). Communication systems: fundamentals and design methods. Chichester; Hoboken, NJ: John Wiley
- Taylor-Massey, J. (2015). Redefining teaching: The five roles of the online instructor [Blog post]. Retrieved from <http://blog.online.colostate.edu/blog/online-teaching/defining-teaching-the-five-roles-of-the-online-instructor/>
- Velasquez, A., Graham, C. R., & Osguthorpe, R. D. (2013). Caring in a technology-mediated online high school context. Distance Education, 34(1), 97–118. doi:10.1080/01587919.2013.770435
- UNDP. (2020 April). A UN framework for the immediate socio-economic response to COVID-19. Retrieved from <https://unsdg.un.org/sites/default/files/2020-04/UN-framework-for-the-immediate-socio-economic-response-to-COVID-19.pdf>
- UNESCO. (2020, May). Supporting teachers in back-to-school efforts: guidance for policy-makers. Retrieved from <https://unesdoc.unesco.org/ark:/48223/pf0000373479>
- WHO. (2020, July). Responding to COVID-19 – Learning from Kerala. Retrieved from <https://www.who.int/india/news/feature-stories/detail/responding-to-covid-19---learnings-from-kerala>