IMPACT OF COVID-19 2ND WAVE ON ACCEPTANCE OF E-LEARNING AMONG POSTGRADUATE STUDENTS - A CASE STUDY

Dr. G. Thirumoorthy[1], A. Arun[2], Dr.T.Malliga[3]

[1]*Assistant Professor (Guest), Department of Education, Bharathiar University*

[2]*Assistant Professor, Vellalar College of Education, Erode.*

[3]*Principal, Vellalar College of Education, Erode.*

ABSTRACT
This paper illustrates to what extent the postgraduate students are accepting the E-learning during the Covid-19 second wave. There were 88 samples were collected from the postgraduate students by using Google Form as a normative survey. The researcher adopted the tool entitled "ELAM: A Model for Acceptance and Use of E-learning by Teachers (Teaching) and Students (Learning)", developed and validated by Khan & Iyer (2010). The collected data were analyzed by using descriptive and inferential statistics. The result reveals that the acceptance level of E-learning is above average among postgraduate students during the 2nd wave of Covid-19.
KEY WORDS: *E-learning, Covid-19, Post graduate students, Acceptance.*

INTRODUCTION
The unstable environment and critical environmental turmoil create new opportunities to survive. Adaptation and acceptance of an unstable environment by adopting a new environment is the only solution to fit into survival. The information and communication technologies (ICT) provide the opportunities to face the conflicted environment such as Covid-19. Mobility of people is totally prohibited during the last two years due to the Covid-19 lockdown. Due to these pandemic situations, the entire formal educational system was interrupted. During the lockdown period, the students continuously engaged in the online classes, and the entire educational management was executed by using ICT. The E-learning methodology may not provide opportunities for physical interaction with friends, teachers, faculty, society, etc. The student psychologically may be exhausted due to continuous engagement in online learning. The level of acceptance may also diminish towards the E-leaning. Hence the researcher intended to study the level of acceptance of e-learning among postgraduate students.

STATEMENT OF THE PROBLEM
Khan (2020) stated that the schools shifting to online classes amid the COVID19 lockdown, parents have alleged educational management were overburdening the students with assignments in a bid to complete the syllabus. Any integration of technologies is interest initially but it may gradually decrease its interest and insolvent. In India, online learning was initiated at the beginning of 2020 and it will continue till the end of Covid-19. The students who are perusing graduation and post-graduation are completed almost their semester examination online. But ensuring the level of acceptance and sustaining the quality of higher education becoming a great challenge. The study of Maulana (2021) reveals that online learning in higher education of psychologically impactful, which resulted in 29% of students having a level of depression above normal, 70% of students had an anxiety level above normal, and 46% of students had a stress level above normal and Babar, Hassan et all (2021) findings reveal that approximately 41% of the students were facing severe psychological distress while about 65% were found unsatisfied with online classes. Besides, a linear

negative relationship between the independent variable, i.e. psychological distress, and the dependent variable, i.e. satisfaction from online classes was found. Not only mental health, but they are also facing some health problems like eye strain, headaches, and fatigue from seeing the screen for such a long time. Besides, sports education and extracurricular classes have also stopped (Nandy, 2020). Especially the Covid-19 second wave made a great impact on the level of acceptance of E-learning among students who are engaged in higher education. Hence, the present study explored the acceptance level of E-learning among post-graduate students.

OBJECTIVES OF THE STUDY

The present study has the following objectives:
- ➤ To find out the acceptance of E-learning among postgraduate students.
- ➤ To find the is there any significant difference in the mean score in acceptance of E-learning among postgraduate students with respect to a) Gender (Male & Female), b) Locality (Rural & Urban), c) Stream (Arts & Science), d) Year of Study (1st Year & 2nd Year) & e) Computer Course (Have & Have Not).

Hypotheses of the Study

Based on the above objectives the null hypotheses were formulated to test.

Delimitation of the Study The present study has the following delimitation:

1. The investigators able to delimit only 88 samples of postgraduate students.

2. The investigators chose the Bharathiar University, Tamil Nadu for the present study.

Materials and Methods Used

For the present study, the researcher adopted the tool entitled "ELAM: A Model for Acceptance and Use of E-learning by Teachers (Teaching) and Students (Learning)", developed and validated by Khan & Iyer (2010). The scale consists of 28 items with a five-point Likert scale. All the items are positive; hence the maximum score is 140 and the minimum score is 28. The Cronbach's Alpha Reliability is 0.78.

Sample and Collection of Data

The students who are perusing postgraduate degrees in Bharathiar University during the Covid-19 2nd wave were considered as population. Due to the Copvid-19 pandemic situation, the researcher avoided physical contact to collect data; hence the Google form was created and circulated in the Bharathiar University students' Whatsapp groups. One week time duration was given to submit the filled Google form. The collected data were tabulate and interpreted.

Statistical Analysis

The collected data were analyzed by using descriptive and inferential analysis. The statistical techniques 't' test was employed for analysis and interpretation of the data.

Analysis of the Data and interpretation

Data were collected from 88 samples of postgraduate students about the acceptance of acceptance of E-learning. The collected data were interpreted as fellow.

Table: 1 Acceptance of E-learning

N	Mean	Mid Value	Result
88	106.63	70	Favorable

Above Table No1 reveals that the calculated mean value (106.63) is above the mid-value (70). Hence, the postgraduate students are favorable in accepting online learning.

Testing of Hypotheses
Ho1. There is no significant difference in the mean score in acceptance of E-learning among postgraduate students with respect to a) Gender (Male & Female), b) Locality (Rural & Urban), c) Stream (Arts & Science), d) Year of Study (1st Year & 2nd Year) & e) Computer Course (Have & Have Not).

Table: 2. Significant difference in the mean score in acceptance of E-learning among postgraduate students with respect to a) Gender (Male & Female), b) Locality (Rural & Urban), c) Stream (Arts & Science), d) Year of Study (1st Year & 2nd Year) & e) Computer Course (Have & Have Not).

Variables	Category	N	Mean	SD	't'	'P'	S/NS
a) Gender	Male	16	97.50	4.64			
	Female	72	108.67	7.13	5.96	0.00	S
b) Locality	Rural	64	104.88	6.991			
	Urban	24	111.33	8.761	3.59	0.00	S
c) Stream	Arts	48	109.00	7.563			
	Science	40	103.80	7.670	3.19	0.00	S
d) Year of Study	1st Year	48	107.50	7.757			
	2nd Year	40	105.60	8.267	1.11	0.27	NS
e) Computer Course	Have	48	109.00	7.563			
	Have Not	40	103.80	7.670	3.19	0.00	S

Significance at 0.05% Level

The above table-2 reveals the calculated 't' values of a) Gender (5.96), b) Locality (3.59), c) Stream (3.19) and e) Computer Course (3.19) are greater than the table value (1.96). Hence the formulated null hypothesis Ho1 a).b), c) and e) are rejected at 0.05 % level and accepted the alternate hypothesis. However, the calculated 'value of d) Year of Study (1.11) is less than the table value (1.96). Hence the formulated null hypothesis Ho1 (d) is accepted at a 0.05 % level.

FINDINGS AND DISCUSSION
- ➢ The postgraduate students are favorable in acceptance of E-learning during the 2nd wave of Covid-19. During the first wave of Covid-19, the students may be unfavorable towards E-learning. But the continuous lockdown may be forced to accept the E-learning and gradually familiarized in the E-learning.
- ➢ The significant mean differences are found between Gender (Male & Female), Locality (Rural & Urban), Stream (Arts & Science), and Computer Course (Have & Have Not). However, there is no significant differences are found between the year of study (1st Year & 2nd Year).
- ➢ A significant difference is found in the mean score between genders; however, the female postgraduate students are more favorable in E-learning than the male. These findings are supported by previous findings such as Huang (2013), Hanham, Lee, & Teo (2021), and Mutambik, Almuqrin, Liu, Alhossayin & Qintash (2021).
- ➢ The postgraduate students belonging to the urban areas are better at accepting E-learning than the students belonging to the rural areas.

The similar finding were found in Sulisworo, Kusumaningtyas, Anomeisa, Wahyuningsih, & Rahmadhani (2020).
- ➢ The postgraduate students belonging to art backgrounds are better at accepting E-learning than the students belonging to science backgrounds. The present finding is supported by the previous findings of Bhat, Ani & Tiku (2016).
- ➢ There is no significant difference in the mean score between 1st and 2nd-year postgraduate students in accepting E-learning.
- ➢ The postgraduate students who have completed Diploma, Certificate courses, undergraduate, postgraduate courses related to a computer are better at accepting E-learning than those do not completed any computer-related courses.

RESEARCH IMPLICATION
The present study made an attempt to investigate the level of acceptance of E-teaching among postgraduate students in Bharathiar University, in Coimbatore, Tamil Nadu. The results of the study have the following implications.

The postgraduate students are favorable in accepting E-learning. Hence, it is need of the hour to redefine the teaching and learning methodology. The conventional educational system needs to update according to modern technology. The curriculum, teaching and learning strategies, assessment, and evaluation are must be updated to 21st-century learning objectives.

The instructional design must be constructed to attract the students. Reinforcement, continuous encouragement, uninterrupted follow-up, etc., may

increase the attention of male postgraduate students toward E-learning.

The awareness, motivation, ICT exposure, amenities and opportunities towards E-learning is much better in and around the urban area than the rural area. Hence the same facilities related to ICT and awareness towards E-learning, training, and workshop related to E-learning must provide to all students with special attention must give to the rural students.

The separate, customized, and special training program should offer to arts and science students to excel in E-learning.

The findings reveal that the postgraduate student who has completed any computer-related course are excelled in E-learning. Hence, the university authorities should offer computer courses at free or affordable cost along with the mainstream of the study.

CONCLUSION

The present study explored to what extent the postgraduate students are sustaining their acceptance of E-learning during second covid-19. The findings may be helpful to the higher educational institutions while executing the curriculum transaction through the E-learning method. While considering and implementing the above educational implication the quality of online learning will increase. The present study will stimulate further research in various aspects of E-learning. Similar studies may be conducted in other postgraduate students accurse the countries to rationalize the findings and research implications.

REFERENCES

1. Babar, M., Hassan Abbasi, K. M., Hussain, S., Riaz, M., Rafiq, M., Mehmood, R., Sheikh, N., Amaan, H. N., Fatima, S., Jabeen, F., Ahmad, Z., & Farooq, A. (2021). Psychological impacts of COVID-19 and satisfaction from online classes: disturbance in daily routine and prevalence of depression, stress, and anxiety among students of Pakistan. Heliyon, 7, 1. PP:1-8.
2. Bhat, B. A., Ani, M. W., & Tiku, A. (2016). Science and Art Students' Attitudes towards Information Technology and Relationship with their Academic Performance. Abhiyantriki An International Journal of Engineering & Technology, 3(2), 5-14.
3. Hanham, J., Lee, C. B., & Teo, T. (2021). The influence of technology acceptance, academic self-efficacy, and gender on academic achievement through online tutoring. Computers & Education, 172, 1-14. https://reader.elsevier.com/reader/sd/pii/S0360 131521001299? token=B610791F15D6554632629CFF13C9CFC11 F150C39F48ED4A00D6095E947AD172442D050C 7FD47E5BFD67E54C895B00DEC&originRegion =eu-west-1&originCreation=20210728094226
4. Huang, C. (2013). Gender differences in academic self-efficacy: A meta-analysis. European Journal of Psychology of Education, 28, 1–35. https://doi.org/10.1007/ s10212-011-0097-
5. Khan, Y. (2020, April 27). Online Classes | Schools overburden students with assignments to finish syllabus, complain parents. Greater Kashmir. https://www.greaterkashmir.com/editorial/ online-classes-schools-overburden-students-with-assignments-to-finish-syllabus-complain-parents
6. Maulana, H. A. (2021). Psychological Impact of Online Learning during the COVID-19 Pandemic: A Case Study on Vocational Higher Education. Indonesian Journal of Learning Education and Counseling, 3(2), 1-11. https://journal.ilininstitute.com/index.php/IJoL EC/article/view/833
7. Mutambik, I., Almuqrin, A., Liu, Y., Alhossayin, M., & Qintash, F. H. (2021). Gender Differentials on Information Sharing and Privacy Concerns on Social Networking Sites: Perspectives From Users. Journal of Global Information Management (JGIM), 29(3), 236-255. http://doi.org/10.4018/JGIM.2021050110
8. Nandy.S. (2020, December 23). Impact of online classes on children's mental health. EducationWorld. https://www.educationworld.in/im pact-of-online-classes-on-childrens-mental-health/
9. Sulisworo, D., Kusumaningtyas, D. A., Anomeisa, A. B., Wahyuningsih, & Rahmadhani, W. (2020). Perceptions Of Online Learning Experiences Between Students In Urban And Remote Areas: Case Study In Indonesia. International Journal of Scientific & Technology Research, 9(2), 4850-4854. http://www.ijstr.org/final-print/feb2020/Perceptions-Of-Online-Learning-Experiences-Between-Students-In-Urban-And-Remote-Areas-Case-Study-In-Indonesia.pdf