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PROBLEMS ENCOUNTERED BY COLLEGE STUDENTS IN VIRTUAL LEARNING ENVIRONMENTS IN COIMBATORE CITY

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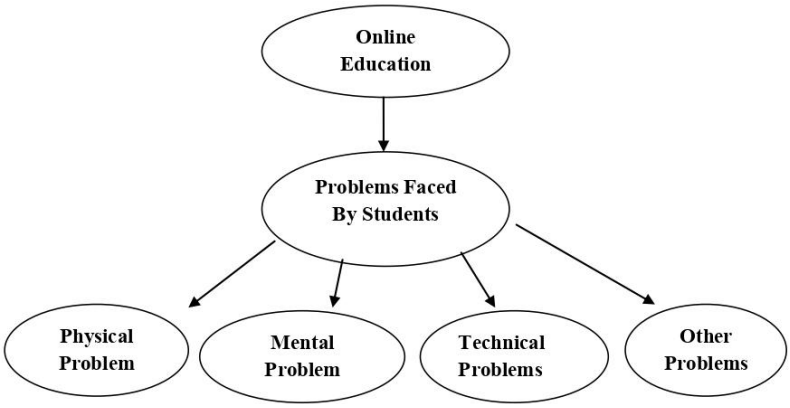
Abstract:

In this context, the study attempts to examine the problems that are faced by the college students during online education. This survey was administered among 105 college going students opting for virtual learning environment in Coimbatore city. Two criteria were taken into consideration while choosing the participants for the survey. The participants are college going students and attended the classes through online mode. Each of the survey responses were entered in SPSS and analyzed using Chi-Square and ANOVA. The result of Chi-square indicates that there is significant association between the demographic profile of the respondents such as gender, monthly income and stream of studying with the gadgets used by the respondents during online education. From ANOVA results it is clear that there is significant association between gadgets used with the eye problem and feeling isolated among the respondents during their virtual learning. The most problematic factors were identified as eye problem, feel stressed, network issues and missing the teacher-student interaction.

Key Words: College Students, Online Education, Problems Faced



Introduction:

Smart phone provides an interactive feature for increasingly wider users around the region and the world. It has become an integral part of everyday student's life. The development of smart phones began in the early 1990's and exploded in 2007 dominated by different operating systems with continuous development. In 2011 RBC Capital analyst, Dan Frommer projected that Smart phone sales are expected to outstrip PC sales and the smart phone users worldwide will triple from 165 million to over 500 million within the few years. Developments of the Smart phones popularly called smart phones allow users to perform activities such as sending text messages, calling, chatting, opening documents, checking e-mails, browsing internet and downloading files in a very convenient way. Smart phone technology provides immense benefits for users as they access and disseminate information rapidly. The growth of smart phone users for the last few years has inspired the researchers to investigate the smart phone usage among college students.

Objectives of the Study:

To analyze the problems faced by college students during online Education.

Review of Literature:

Suraksha Subedi (2020)[1] in his research article attempted to assess the Impact of E-learning during COVID-19 Pandemic among Nursing Students and Teachers of Nepal. A descriptive cross-sectional online survey was conducted among students and teachers from 13 different nursing colleges in Nepal. The data were collected among 1116 respondents out of which 104 are faculty members and 1012 are nursing students.51% of faculty members belong to age group of 30-39 years. 97% of respondents are Female. 56.7% of respondents are

with Master degree. 44.2% of respondents' income level were between Rs.50,000 - Rs.1,00,000. 42.3% of teacher faces electricity problem, 48.1% suffered because of internet issue. 63.2% of students faces electricity problem during online class, 63.6% suffered because of internet problem. However, 64.3% of students used their own data pack for their online class, 58.4% used Smart phones for online education.

Rizwan Ahmed Laar (2021)[2] in his research article attempts to identify the experience and difficulties faced by online physical education students in higher education. The data was collected from 56 students from physical education from 9 different educational institutions which includes Bachelor, Master and Research Scholars. The survey was conducted during the month of June 2020. Pilot study was conducted among 6 students. Well framed questionnaire was distributed among the respondents which contains 11 open ended questions. The result indicated that 34 respondents are Male and 22 are Female. 21 respondents are pursuing their Bachelor's degree, 20 respondents are from Master's Degree, and 15 respondents are Research scholars. 4 respondents are highly affected by Mental pressure due to lack of physical activity. Most of the students are not satisfied with online class.

Nazma Bibiet. al. (2020)[3], in their research article, examine to study the issues faced by college students as a result of online learning during COVID-19. The study was conducted among public and private sector college online portal usage. The data was collected among 1000 students out of which 805 questionnaires were returned by the respondents. 4 factors were taken into consideration such as availability of infrastructure, home environment, students' knowledge, skills about internet. SEM - Structural Equation Modeling was used for analysis. The result indicates that there is no significant difference between the challenges faced by public and private college students. Both government and private college students faced same challenges like unavailability of smooth networking of cellular companies, home environment, less separate space for studying, interruption of family members during online class, submission of assignments due to technology issues. It is suggested that government can provide free internet service throughout the county.

Muthu Prasad T (2021)[4]in his article he focused on agricultural students' perception and preference towards online education. The survey was conducted among 307 students, who are agricultural graduates from different universities of National Agricultural Research System (NARS). It included 136 Under Graduates, 84 Postgraduates and 87 students pursuing their Ph.D. Among them 172 were Female and 135 were Male. A structured questionnaire was prepared and circulated among the respondents. Snow ball sampling methods was used for collecting the data. Majority 56% of the respondents were Female. 45% of the respondents were belonging to rural background, 54% of the respondents preferred to upload the recorded videos in University website for further reference,53% of respondents preferred Power point presentation for online class. The study concludes that respondents faced connectivity problem during online class and found that conducting the practical classes online is a difficult task.

Venkataraman Saminathan, (2022)[5] his study focused on Smart phone usage among college students. The study was conducted among 750 arts &science, engineering, teacher training institute in and around Tirunelvelli, Tuticorin, Kanyakumari districts of Tamilnadu. The data were collected through random sampling technique. Questionnaires were framed with 67 questions which consisted of "Often, Occasionally, and Never". From the study it is clear that there is no significant relationship between days-scholar and hostel students who uses Smart phone for educational purpose, and there is no relationship between Tamil and English medium students who uses Smart phone for educational purpose.

Gehan Mohamed Abd El-Hamed Diab, Nahid Fouad Elgahsh (2020)[6] in this study they focus on the problems that are faced by nursing college students of Menoufia University, Egypt. Ratified sampling technique was used for collecting the samples. From the study it is clear that 61.6% of the respondents have negative attitude towards E-learning. There was highest level (67.6%) of obstacles faced by first year students, and lowest level of obstacles (55.7%) faced by fourth year students. The major problem faced by the students during online education was infrastructure, technology, support from management. The study concluded that there is high statistically significant negative correlation between obstacles faced by nursing college students and their attitude towards e-learning.

Methodology of the Study:

This part presents the design of the study and the approaches adopted for this study, the measurement concept and the statistical procedure employed for analyzing the data collected.

Research Design:

A research design is a detailed outline of general research which will typically include how data is to be collected, what instruments will be employed, how the instruments will be used and the intended means for analyzing data collected. The design used in this study is descriptive type of research where the researcher has no control over the variables.

Sampling Method and Data Sources:

Convenient sampling method was used for collecting the data. The primary data were collected directly from the respondents through questionnaire. Secondary data were also collected through various books, journals, Magazines and relevant websites.

Area of Study and Sampling Size:

This refers to number of respondents selected in Coimbatore city to constitute a sample. The study is conducted with 105 college going students using the virtual learning methods.

Tools and Techniques Applied for Analyzing the Collected Data:

To analyze the collected data Simple Percentage Analysis, Chi-square Analysis and ANOVA were applied.

Limitations of the Study:

- The information is highly dependent on the knowledge of the respondents.
- The sample size is limited to 105 respondents only and hence the results may not be universally applicable.
- The geographical area of this study is confined to Coimbatore City only.

Results and Discussions:

Demographic Profile - Simple Percentage Analysis:

Simple percentage analysis was used to analyze the demographic profile of the respondents.

- Majority (56.7%) of respondents are Female
- Majority (66.7%) of respondents belong to nuclear family
- Majority (63.8%) of respondents are pursuing their Under Graduate Degree
- Majority (34.3%) of respondents' monthly income range between Rs.20,000 to Rs.30,000
- Majority (62.9%) of respondents are from Non-autonomous colleges.
- Majority (66.7%) of respondents belong to Commerce stream.
- Majority (69.5%) of respondents use Smart phones for online education.

Problems Faced By College Students during Virtual Learning:

Chi-Square Analysis:

Chi-square test is used if the two variables are statistically associated with each other significantly. It is used to test the significance of influence of one factor over the other factor. It is used to test the significant association between Gender, Income level and Stream of studying with the gadgets used by the respondents.

Gender and Gadgets Used for Virtual Learning:

Ho-1: There is no significant association between Gender of the respondents and gadgets used by them.

Table 1: Gender and Gadgets Used

Gender	Gadgets Used			Total
	Laptop	Smart Phone	Tab & Others	
Male	18	23	4	45
Female	10	50	0	60
Total	28	73	4	105

Source: Computed from Primary Data

Table 1 shows that majority of the respondents are Female and they use Smart phone for online education compared to other gadgets.

Table 2: Chi-Square Tests Results for Gender and Gadgets Used

Particulars	Value	Significance
Pearson Chi-Square	14.424[a]	.001

Source: Computed from Primary Data

From table 2, it is clear that the significant value is 0.001 which is less than 0.05. Hence, the null hypothesis is rejected. So, it is proved that there is significant association between gender of respondents and gadgets used by the students.

Income of the Respondents and Gadgets Used for Virtual Learning:

Ho-2: There is no significant association between Income of the respondents and gadgets used by them.

Table 2: Income Level and Gadgets used

Monthly Income Level	Gadgets Used			Total
	Laptop	Smart Phone	Tab & Others	
Below Rs.20,000	0	20	0	20
Rs.20,000-Rs.30,000	10	26	0	36
Rs.30,001-Rs.40,000	10	14	1	25
Above Rs.40,000	8	13	3	24
Total	28	73	4	105

Source: Computed from Primary Data

From table 2 it is clear that majority of the respondent's monthly income is between Rs.20,000-Rs.30,000 and they use Smart phone for online education.

Table 3: Chi-Square Tests Results for Income Level and Gadgets Used

Particulars	Value	Significance
Pearson Chi-Square	18.492[a]	.005

Source: Computed from Primary Data

From table 3 it is clear that the significant value is 0.005 which is less than 0.05. Hence, the null hypothesis is rejected. So, it is proved that there is significant association between monthly income of respondents and gadgets used by the students.

Stream of Studying and Gadgets Used for Virtual Learning:

Ho-3: There is no significant association between stream of studying and gadgets used by them.

Table 4: Stream of studying and Gadgets Used

Studying Stream	Gadgets Used			Total
	Laptop	Smart Phone	Tab & Others	
Commerce	10	59	1	70
Arts	9	9	0	18
Science	0	2	1	3
Engineering	8	2	2	12
Others	1	1	0	2
Total	28	73	4	105

Source: Computed from Primary Data

From table 4 it is clear that majority of the respondents belong to the Commerce stream and they use Smart phone for online education.

Table 5: Chi-Square Tests Results for Stream of studying and Gadgets Used

Particulars	Value	Significance
Pearson Chi-Square	38.099[a]	.000

Source: Computed from Primary Data

From table 5 it is clear that the significant value 0.000 is less than 0.05. Hence, the null hypothesis is rejected. So, it is proved that there is significant association between stream studying of respondents and gadgets used by the students.

ANOVA-Analysis of Variance:

ANOVA is an important technique in the context of all those situations to examine the significant mean differences between more than two groups. The result of the ANOVA will show whether or not the means of various groups are significantly different from one another as indicated by F statistic. ANOVA is applied to examine the relationship between the Physical, Mental, Technical and Other Problems faced while using the various gadgets for their virtual learning.

Ho-4: There is no significant association between Physical problems faced and gadgets used by the respondents.

Table 6: Physical Problems

Physical Problem Factors		N	Mean	Std. Deviation	F	S
Lack of Physical Exercise	Laptop	28	4.3571	.67847		
	Smart Phone	73	4.0137	.90513	1.603	.206
	Tab & others	4	4.0000	1.41421		
	Total	105	4.1048	.87622		
Eye Problem	Laptop	28	4.7857	.49868		
	Smart Phone	73	4.3699	.99313	5.526	0.005
	Tab & others	4	3.2500	1.70783		
	Total	105	4.4381	.96001		

Source: Computed from Primary Data

Table 6 shows that the significant values for the physical problems faced by the respondents while using the electronic gadgets for their online education. For the Eye Problem - The significant value is 0.005 which proves that the null hypothesis is rejected. Hence, it is said that there is significant association between gadgets used and Eye problem faced by the respondents. For the Lack of Physical exercise - The significant value is .206, which says that the null hypothesis is accepted. Hence, it is proved that there is no significant association between gadgets used and lack of physical exercise faced by the respondents.

Ho-5: There is no significant association between Mental Problems and gadgets used by the respondents

Table 7: Mental Problems

Mental Problem Factors		N	Mean	Std. Deviation	F	S
Stress	Laptop	28	4.4643	.69293	.201	.818
	Smart Phone	73	4.3562	.90323		
	Tab & Others	4	4.5000	.57735		
	Total	105	4.3905	.83775		

Feel Isolated	Laptop	28	4.0714	1.11981	.013	0.005
	Smart Phone	73	4.0822	.95384		
	Tab & Others	4	4.0000	.81650		
	Total	105	4.0762	.98737		
Social-Media Distraction	Laptop	28	4.3214	.90487	1.060	.350
	Smart Phone	73	4.0411	1.03331		
	Tab & Others	4	3.7500	.95743		
	Total	105	4.1048	.99927		
Adapting to Digital Mode	Laptop	28	4.1071	.83174	.250	.779
	Smart Phone	73	4.0548	.97026		
	Tab & Others	4	3.7500	1.25831		
	Total	105	4.0571	.93879		

Source: Computed from Primary Data

Table 7 shows that the significant values for the mental problems faced by the respondents while using the electronic gadgets for their online education. For the Feeling isolated - The significant value 0.005 revels that the null hypothesis is rejected. Hence, it is proved that there is significant association between gadgets used and feeling isolated from others by the respondents. For Stress, Social-media Distraction and Adapting to digital mode - The significant values .818, .350 and .779 makes it clear that the null hypothesis is accepted. Hence, it is proved that there is no significant association with stress level, Social-media distraction and adapting to digital mode by the respondents with the gadget's usage for virtual learning.

Ho-6: There is no significant association between Technical problems faced and gadgets used by the respondents

Table 8: Technical Problems

Technical Problem Factors		**N**	**Mean**	**Std. Deviation**	**F**	**S**
Network Issue	Laptop	28	4.3929	1.06595	.387	.680
	Smart Phone	73	4.3562	.80571		
	Tab & others	4	4.7500	.50000		
	Total	105	4.3810	.87024		
Gadget Issue	Laptop	28	4.1071	1.06595		
	Smart Phone	73	3.9452	.76177	1.063	.349
	Tab & others	4	4.5000	.57735		
	Total	105	4.0095	.84915		

Source: Computed from Primary Data

From table 8 it is clear that the significant values for the technical problems viz., network issue and Gadget issue are greater than 0.05, so the null hypothesis is accepted. Hence, it is clear that there is no significant association between gadgets used and all the technical problems faced by the respondents.

Ho-7: There is no significant association between other problems faced and gadgets used by the respondents

Table 9: Other Problems Faced

Other Problem Factors		**N**	**Mean**	**Std. Deviation**	**F**	**S**
Teacher-Student Interaction	Laptop	28	4.4286	.69007	3.222	0.44
	Smart Phone	73	4.1507	.93795		
	Tab & others	4	3.2500	1.50000		
	Total	105	4.1905	.92086		
Financial Burden	Laptop	28	4.2857	.89679	.811	.447
	Smart Phone	73	4.0274	.95703		
	Tab & others	4	4.2500	.95743		
	Total	105	4.1048	.93976		
Missing Practice-Based Learning	Laptop	28	4.2143	.91721	1.106	.335
	Smart Phone	73	3.9041	1.02962		
	Tab & others	4	4.2500	.95743		
	Total	105	4.0000	1.00000		

Source: Computed from Primary Data

From table 9 it is clear that the significant values for Teacher-student interaction, financial burden, Missing practice-based learning are found greater than 0.05, so the null hypothesis is accepted. Hence, there is no significant association between gadgets used and all the other problems faced by the respondents.

Conclusion:

In this article the researcher examined the various problems that are faced by the students during online education. Problems such as physical, mental, technical and other problems were taken into consideration. Online learning has not shown to be as effective as traditional learning, despite the fact that it protects staff and students' health. The findings of the study reveal that, majority of the respondents are Female, their monthly

income level is between Rs.20,000-Rs.30,000, who belong to arts college using smart phone for online education. Majority of the students face eye problem, feel more stressful and they are isolated from others, faced network issues, they missed the teacher-student interaction by using electronic gadgets for virtual learning. Among the electronic gadgets used for virtual learning Smart phone are the highly used mode for online education.

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