INTERACTIVE ONLINE TEACHING ENVIRONMENT FOR HIGHER EDUCATION INSTITUTES

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Abstract

Introduction:There has been little research on how students' views about online learning change over time at Australian universities, despite the fact that it is becoming more popular. There has also been little research into what criteria may be used to predict these adjustments.

Aim of the study:the main aim of the study is to Interactive Online Teaching Environment For Higher Education Institutes.

Material and method:the efficiency of future e-learning initiatives will be influenced by students' attitudes and opinions about e-learning, as well as their level of satisfaction with technology and their prior e-learning experiences

Conclusion:In order to attain the objectives of the study, a questionnaire survey over 1000 respondents is conducted in which 500 respondents were of UG degree and 500 respondents were of PG degree.

Key Words: Online, Teaching, Students, Teachers, Higher Education, Institutes etc.

1. Introduction
1.1 OVERVIEW

It is no longer necessary to attend a physical school in order to receive an education or to broaden one's knowledge in today's world. There are several ways of learning and education available, making it simpler for the general public to acquire information. Despite the diversity and convenience with which it can be accessed, online learning is the most extensively utilised and acknowledged technique of progressing academics at respected educational institutions all over the globe, regardless of where they are located. According to Asabere (2012), online learning wants to completely transform the academic process from start to finish. There are several terms used to characterise online learning, including learning via the internet, online learning, and computer-aided education, to name just a few. According on the context in which it is used, the term "online education" may have a variety of different connotations. Several experts, such as Bertea (2009), feel that online learning is a method of teaching that attempts to use a variety of technological

tools, while others say that it is a substitute for distance education, which is made possible via the use of the internet. As defined by Nichols (2003: 01), online learning refers to a mix of several technologies that are utilised only for educational reasons.

Having evolved with the advancement of modern information and communication technology, the term "online learning" has come to refer to a variety of distant education techniques that make use of the internet, including correspondence courses (ICT). Developed by Legris (2003), the Technology Acceptance Model (TAM) is intended to help instructors get a better understanding of how students engage with technology. It was in 1986 when Davis came up with the concept for this car. TAM is one of the various rings that comprise Ajzen's Theory of Reasoned Action (TRA), which is a multilayeredtheory of action developed in 1980. Using TAM as his regular approach for detecting whether or not customers are likely to accept or reject the usage of current technology, Davis (1989) has been conducting research on clients since its establishment in 1989. TAM's framework allows researchers to observe and document changes in confidence, attitudes, and

plans for using information technology over a certain period of time, which they may then report on.

1.2 ONLINE TEACHING

Online learning, often known as e-learning, web-based learning, or computer-assisted education, is a kind of learning that takes place via the use of the internet. According to Asabere (2012), online learning wants to completely transform the academic process from start to finish. According to Bertea (2009), online learning and teaching has been defined as a way of teaching in which multiple integrations of technology are sought; nevertheless, some feel that it is an alternative to distance education that is aided by the use of the Internet, as has been described above.

1.3 INDIVIDUAL STUDENT VIEWS OF TRADITIONAL AND INTERNET DELIVERY METHODS

The use of information and communications technology (ICT) in the curriculum of universities is increasing as a means of providing students with additional online learning opportunities via the university's Learning Management System (LMS). Blended learning is a popular method for delivering course information that mixes conventional face-to-face teaching with online teaching tools. Since it gives students more freedom and access to a wider choice of educational resources, this method has gained popularity. Students' opinions regarding the move from conventional face-to-face delivery to online delivery must be taken into account as the demand for additional e-learning choices grows.

2. LITERATURE REVIEW

Balan, Anna & Montemayor (2021) The influence of online learning on attention span and motivation has been the subject of recent study, but there have been no studies that have examined the relationship between all three elements. This study looked at the impact of online learning on college students' attention spans and levels of motivation, and the results were promising. It was possible to gather data from 253 college students from

Metro Manila and the Calabarzon region via the use of Google Forms. They used the McVay Readiness for Online Learning Questionnaire, the McVay Academic Motivation Scale College Version, and the Moss Attention Rating Scale to assess their students' readiness for online learning. It was decided to use statistical tests such as correlation and one-way analysis of variance to analyse the data acquired (ANOVA). Respondents' attention span is paired with their readiness for online learning; however, the results indicate that there is no statistically significant difference in their levels of motivation when they are categorised according to their readiness for online learning, according to the findings. Future studies should examine the differences between asynchronous and synchronous methods of online education delivery, as well as other factors such as the instructor's method of teaching and the students' year level, in order to obtain more accurate results in determining the impact of online learning on the attention span and motivation levels of college students.

Law, Mei Yuan (2021) During COVID-19 in Malaysia, this research intends to learn about university students' attitudes and satisfaction with online learning. Students from a Kuching university were polled on their attitudes and satisfaction with four key aspects of their emergency remote learning experience, including the learning materials they used, the assessments they took, the communications they had, and the technology they used and the support they received. Results from this research demonstrate that students are generally pleased with the online learning experience. According to the findings of this research, educators may use an instructional pedagogy approach and the right integration of technology resources to guarantee that students get quality education during the current COVID-19 epidemic.

Gautam, Dhruba& Gautam, Prakash (2021) Following the outbreak of the COVID-19 virus, hundreds of educational institutions throughout the globe have closed their doors, ordering their students to remain at home and avoid exposure to the virus. Nepal is not an exception to this rule. This study examines the factors that contribute to the efficacy of online learning for students who are enrolled in traditional on-campus courses in order to gain a better understanding of faculty and

student attitudes toward online learning during the COVID-19 epidemic. The findings will be used to inform future research. In this exploratory research design, a combination of qualitative and quantitative methodologies are employed. To get a comprehensive understanding of the phenomena, a three-stage data collection approach was used: a preliminary interview, a structural survey, and validation. In this study, it was discovered that there were three variables that contributed to the effectiveness of online classes during a pandemic: infrastructure, students, and the teacher. When online teaching and learning is supported by the appropriate technology, infrastructure, and staff and student views, it may be more effective. A increased willingness to learn during the COVID-19 outbreak lowered students' levels of worry, and this was especially true throughout the epidemic. Originality/value This study makes significant contributions to the development of online and in-class teaching and learning strategies, which will be useful in the administration of higher education in the future.

Demuyakor, John (2020)The first quarter of 2020 is a difficult period for the whole world. Coronavirus (COVID-19) pandemics influenced all facets of human endeavours, from the reduction in industrial productivity to the re-adjustment of the academic calendar of all educational institutions worldwide. Stakeholders and administrators in higher education have little choice but to turn to the internet and online learning in order to keep academic activities going at all of the world's schools. According to this study, the "mass" online learning at Beijing's higher education institutions is being seen positively by Ghanaian foreign students. As a result, an online poll was used to gauge student satisfaction with online learning at four-year colleges and universities, as well as how overseas students from Ghana are handling these "new initiatives." As the majority of students polled in the research agreed, it seems that implementing online learning programmes was an excellent decision. Students were also found to have a good understanding of the COVID-19 epidemic,

according to the report. Participating in online education has a considerable cost, as the researchers discovered throughout their investigation. Due to COVID-19, students outside of China are spending a lot of money on internet data for online learning. A final finding of the research was that internet access for students living in dorms at Chinese institutions was very sluggish. If and when the university has to make emergency choices on the deployment of online learning programmes for students from diverse backgrounds, the results of this research will be invaluable to them.

Haider, Ahmad & Al-Salman, Saleh (2020)Faculty members at Jordan's universities weigh in on their impressions of the emergency online learning approach for COVID-19, according to this report. There is a lot of focus on the benefits of online learning, as well as the difficulties encountered and possible solutions. Data was collected from 432 professors at six Jordanian public and private institutions, using an empirical research methodology. In order to gather information, a structured open-ended questionnaire will be used. This questionnaire will have three sections: difficulties, benefits, and improvement ideas. In order to derive frequencies and percentages, similar replies were grouped together into thematic groups. Findings of Major Importance: Regarding benefits, e-learning provided educators with new tools and techniques to utilise in the classroom. Policymakers' lack of clarity and vision, as well as technology and the Internet, were all major obstacles to overcome. Some of the ideas put up by instructors were greater technical assistance, integrating online and conventional learning, giving additional training, and creating new evaluation instruments. Uses of this research: educational leaders and policymakers may utilise this study to get insight into how higher education institutions have reacted to this global health issue, and how they have been able to satisfy the shifting requirements of students and employees. As a result, the higher education sector should be better equipped to handle any future crisis. The study's originality and novelty: COVID-19's influence on the education sector throughout the world has been studied extensively, although less attention has been paid to emerging nations in the Middle East. To this purpose, this paper examines how COVID-19 has reshaped and

revolutionised the Jordanian higher education paradigm by emphasising its benefits, problems, and subsequent recommendations for improvement.

3. RESEARCH OBJECTIVES

• To study the conceptual framework of attitude formation with respect to online teaching.
• To identify the factors affecting online teaching environment.

4. RESEARCH METHODOLOGY

The investigation was carried out utilising a descriptive, quantitative, and correlational methodology. The purpose of descriptive studies, such as this one, is to gather information about a phenomenon or phenomena and use it to answer questions and develop hypotheses about that phenomenon or phenomena, in this case, the respondents' attitudes toward virtual science education, their technological competence, and their access to technology. This study was classified as correlational since it tried to determine whether or not the variables under consideration had any form of relationship with one another. Using research instruments, we were able to assess the latent variables, which is a common and conventional method in studies involving the same components as those investigated in this study. Given the large sample size, it was

necessary to assess the cost-effectiveness of this approach of data gathering before moving further with it. A population-based assessment was conducted for this research since it was designed specifically for science educators.

4.1 Validity test of questionnaire

Experts were also asked to compute the percentage of questions looked to be apposite for them. Average of all experts' percentage is called as Average Congruency Percentage (ACP). ACP tells the validity of questionnaire i.e., whether the questionnaire measure the factors in which it is intended to measure or not. Poham (1978) concluded that if ACP value is greater than 90% then questionnaire will be also valid.

4.2 Frequency Analysis

Frequency analysis of each variable describe the number of respondents choosing a particular category of agree. In SPSS software, the frequencies procedure can produce summary measures for categorical variables in the form of frequency tables, bar charts, or pie charts.

4.3 Sample

For the present Study, the researcher will take 1000 Students at Graduate & Postgraduate level. The required data will be collected from Rohilkhand Region.
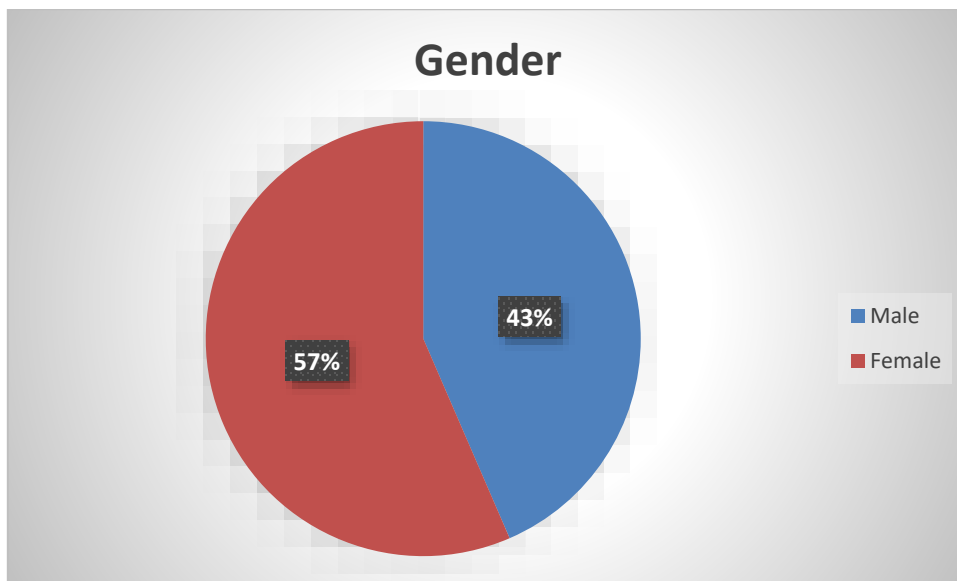
5. RESULTS

5.1 Frequency Analysis of data

Frequency Tables

1. Gender:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Male	435	43.5	43.5	43.5
	Female	565	56.5	56.5	100.0
	Total	1000	100.0	100.0	

In the questionnaire survey, there were 435 respondents for male gender and 565 (56.5%) (43.5%) respondents for female gender.

Gender

2. Age (In Years)					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	18-25 Years	513	51.3	51.3	51.3
	25-35 Years	487	48.7	48.7	100.0
	Total	1000	100.0	100.0	

In the questionnaire survey, there were 513 respondents 35 years age group.
in 18-25 years age group and 487 respondents were in 25-

Age
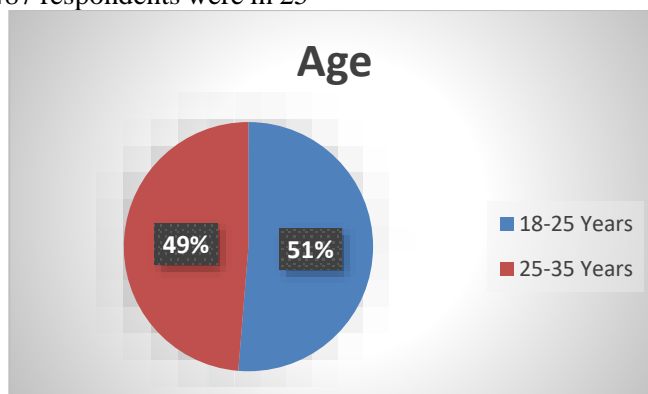
3. Education Level:					
		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	UG	500	50	50	50
	PG	500	50	50	100.0
	Total	1000	100.0	100.0	

In the questionnaire survey, there were 500 (50%) degree.
respondents for UG and 500 (50%) respondents for PG

Education Level
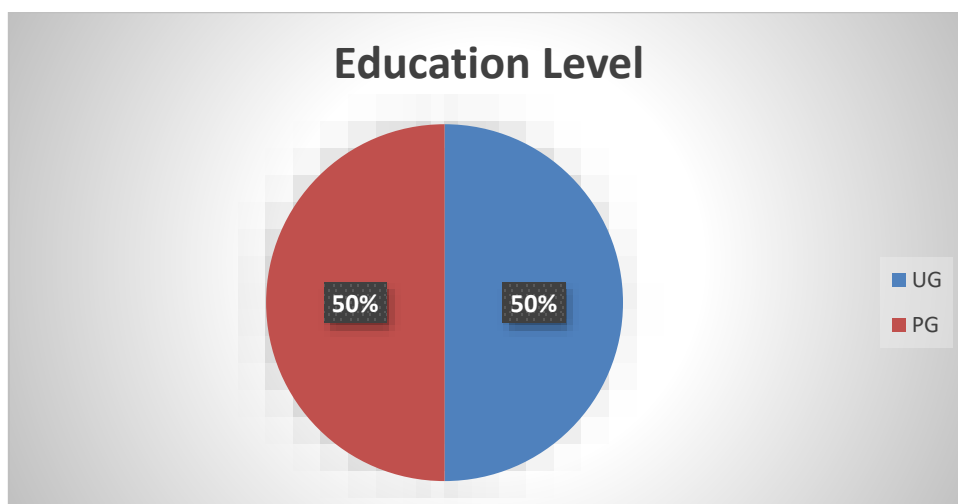
5.2 Descriptive statistics of data

As shown in Table 4.1, descriptive analysis of data includes mean, median, mode, standard error of mean, standard deviation, variance, range, minimum, maximum and sum of respondent's score.

**Table 1 Descriptive statistics of data**

	N		Mean	Median	Mode	Std. Deviation	Variance	Range	Sum
	Valid	Missing							
1. Gender:	1000	0	1.4870	1.0000	1.00	0.50008	0.250	1.00	1487.00
2. Age (In Years)	1000	0	1.4870	1.0000	1.00	0.50008	0.250	1.00	1487.00
3. Education Level:	1000	0	1.4870	1.0000	1.00	0.50008	0.250	1.00	1487.00
4. How many hours are you spending weekly online?	1000	0	1.4870	1.0000	1.00	0.50008	0.250	1.00	1487.00
5. Do you find digital learning and platforms useful?	1000	0	3.0200	3.0000	5.00	1.45179	2.108	4.00	3020.00
6. How many hours do you devote to individual study?	1000	0	3.0150	3.0000	1.00[a]	1.43486	2.059	4.00	3015.00
7. How often you enter online?	1000	0	2.9250	3.0000	2.00	1.38683	1.923	4.00	2925.00
8. Yours comfiness and knowledge regarding online exam?	1000	0	3.0050	3.0000	2.00	1.39890	1.957	4.00	3005.00

9. Yours comfiness and knowledge regarding portfolio exam?	1000	0	2.9660	3.0000	1.00	1.42228	2.023	4.00	2966.00
10. Yours comfiness and knowledge regarding synthesis exam?	1000	0	2.9280	3.0000	1.00	1.42648	2.035	4.00	2928.00
11. Yours comfiness and knowledge regarding MCQs Test?	1000	0	3.0280	3.0000	3.00	1.41606	2.005	4.00	3028.00
12. Yours comfiness and knowledge regarding written exam?	1000	0	3.0670	3.0000	5.00	1.40730	1.980	4.00	3067.00
13. Do you read the specialty materials?	1000	0	1.4670	1.0000	1.00	0.49916	0.249	1.00	1467.00
14. How much you appreciate the online courses quality?	1000	0	3.0200	3.0000	5.00	1.45179	2.108	4.00	3020.00
15. Do you find digital learning and teaching platforms useful?	1000	0	1.5100	2.0000	2.00	0.50015	0.250	1.00	1510.00
16. How much you are satisfy with your learning activity?	1000	0	2.9160	3.0000	2.00	1.39028	1.933	4.00	2916.00
17. Is online learning stressful?	1000	0	1.4810	1.0000	1.00	0.49989	0.250	1.00	1481.00
18. Do you have any counsellor for managing the stress?	1000	0	1.4940	1.0000	1.00	0.50021	0.250	1.00	1494.00

19. Your satisfaction level with your counsellor for managing the stress?	1000	0	1.4980	1.0000	1.00	0.50025	0.250	1.00	1498.00
20. Which of the following mode of learning is more stressful?	1000	0	3.0080	3.0000	4.00	1.40638	1.978	4.00	3008.00
21. Do you use NPTEL learning platform?	1000	0	1.5120	2.0000	2.00	0.50011	0.250	1.00	1512.00
22. Do you use MOOC learning platform?	1000	0	1.4910	1.0000	1.00	0.50017	0.250	1.00	1491.00
23. Do you use UDEMY learning platform?	1000	0	1.5030	2.0000	2.00	0.50024	0.250	1.00	1503.00
24. Do you use COURSERERA learning platform?	1000	0	1.4820	1.0000	1.00	0.49993	0.250	1.00	1482.00
25. Your satisfaction level with NPTEL learning platform?	1000	0	2.9800	3.0000	4.00	1.40626	1.978	4.00	2980.00
26. Your satisfaction level with MOOC learning platform?	1000	0	2.9420	3.0000	2.00	1.42361	2.027	4.00	2942.00
27. Your satisfaction level with UDEMY learning platform?	1000	0	3.0430	3.0000	5.00	1.42238	2.023	4.00	3043.00

28. Your satisfaction level with COURSERERA learning platform?	1000	0	2.9830	3.0000	4.00	1.42364	2.027	4.00	2983.00
29. Your overall attitude towards online learning?	1000	0	1.5100	2.0000	2.00	0.50015	0.250	1.00	1510.00

Figure 4.1 Mean Value Chart
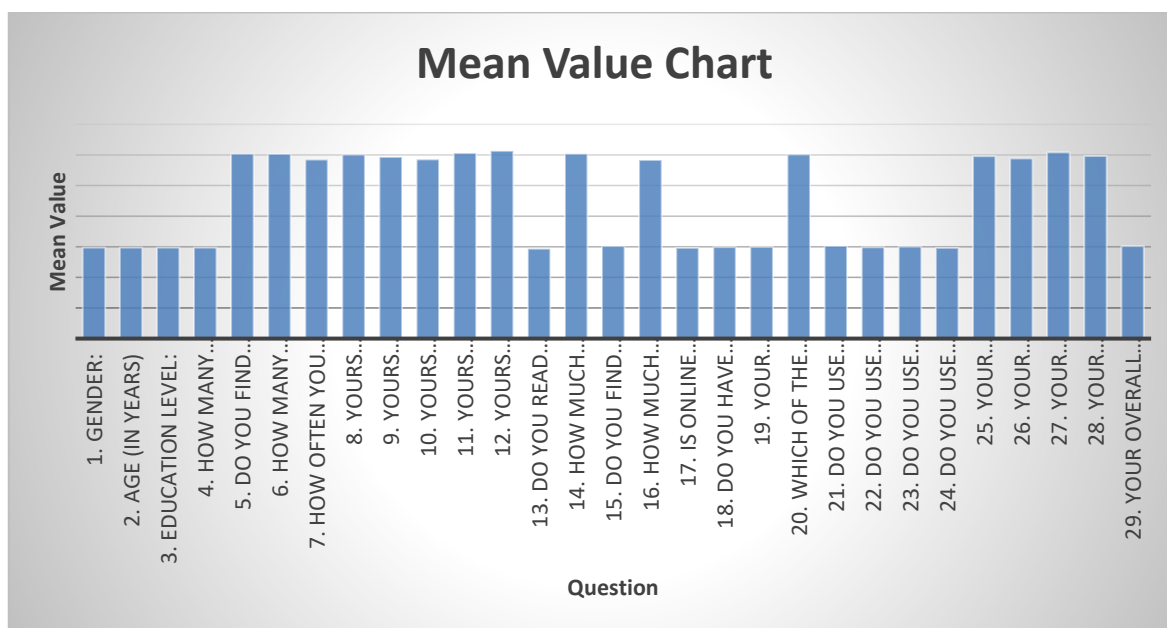
6. CONCLUSION

In order to attain the objectives of the study, a questionnaire survey over 1000 respondents is conducted in which 500 respondents were of UG degree and 500 respondents were of PG degree. There were 435 male and 565 female in the study. The article presents the results obtained following the application of questionnaires applied to identify student's behavior and attitudes towards online education in Rohilkhand Region. Based on the literature, the results were able to create a student profile model and establish the factors which influence student's behavior and attitudes concerning online education. Online education has been a great challenge for both teachers and students. At present, education is still in a period of adaptation, of identifying the factors that influence the educational act for an as yet unexplained period.

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