



A Study on the Impact of Online Examination Among Students in Higher Education with Special Reference to UG And PG Students

Sugabradhayini.M¹, Haridha Gowri.R² 1st Year^{1,2}, PG Department of Accounting And Finance ^{1,2}, Shrimathi Devkunvar Nanalal Bhatt Vaishnav College For Women, Chromepet, Chennai 600 044^{1,2.} <u>P21af030@sdnbvc.edu.in</u>¹, <u>P21af015@sdnbvc.edu.in</u>²

ABSTRACT

The pandemic situation has given rise to complete things in stampede and skepticism procedure. Despite the pandemic, everything will evolve online. This circumstance has not happened only in India, it occurred in the entire globe. The outset of this digital era has been stimulated and the process of acquiring various protocols can help to carry out different training methods. Different Sectors, divisions, enterprises, and organizations are approving online mode for carrying out day-to-day activities. This study aims to undertake an opportunity to know about the impact of online examinations in higher education.

Keywords: online examination, pandemic, higher education, protocols.

INTRODUCTION

"CHANGES ARE INEVITABLE IN NATURE"

Source:<u>https://www.changeandstrategy.com</u>

This statement perfectly cloaks the current circumstance of the nation. The world is transforming in an extremely favorable way. These optimistic changes are brought by nothing but the tremendous innovations happening in the field of digitalization. The outset of this digital era has stimulated and helped acquire various protocols that can help carry out different training methods. Different Sectors, divisions, enterprises, and organizations are approving online mode for carrying out day-to-day activities. The pedagogy(education) sector is one of the most significant sectors in the recent era, they have voluntarily assisted in executing courses and assessments virtually related to the learners.

These platforms are helping to carry out all the possible methods in online education. The secure and hassle-free way is followed by the institutions to avoid malpractice during examinations schedules. Networks in higher education offer every feature or method required to conduct online exams safely. This study aims to focus on the impact of online examinations among students in higher education.



Vol. 2(1), January 2022, pp.24-34



NEED OF THE STUDY

The present research is carried out to investigate the impact of online examination in higher pedagogy. This study helps to know about the complicated factors in the online examinations among undergraduates and postgraduate learners in higher education.

REVIEW OF LITERATURE

Blessy Irene (2021) has proposed research on the effectiveness of e-learning to conventional learning in the pandemic period. The objective of the study was to know about the thoughts of undergraduate students and teachers in online education. The size of the study was 412 and analyzed using Percentage analysis, Correlation, and Chi-Square. The study was concluded that both students and teachers are not interested in virtual education

Tamilarasi. C, Dr.Kamatchi.S(2021)^I has proposed research on the impact of online classes on school students during covid panoramic. The study intended to examine the influence of online learning and it is effective on learners. The sample size of the study was 97 and applied using a simple random sampling technique. The study concludes that higher secondary students have more inconvenienced with class hours. The researcher has suggested reducing the number of class hours from 5 to 3

Dr. Sylvia Mercy.D(2021) has proposed research on virtual education and its benefits and challenges. The objective of the study was to know about the benefits and challenges of virtual education. The researcher has stated that flexibility, efficiency, and a safe environment are some of the benefits of virtual education. Adaptability, technical issues, and isolation are some challenges in virtual education. The study was concluded that the possibility of swapping physical to virtual is quite challenging for students.

Dr.Malarvizhi. K (2021) The objective of the study was to analyze technical equipment provided by the institution for online classes and arrangements made by the parents. The sample size of the study was 230 and analyzed using percentage analyses, chi-square, and t-test. The study was concluded that students are not having adequate gadgets to access online classes.

Nithya.M, Dr.Rajamanar.K $(2020)^{1}$ The investigator formulated the statement about digital education. The motive of the research was to examine the scope and challenges in digital education in India. The study was descriptive. The study concluded that the development of education infrastructure is required to encourage digital education.





Vol. 2(1), January 2022, pp.24-34

Devayanai(2020) The objective of the study was to know about awareness in the digital environment of various ICT tools used among students in higher education. The sample size of the study was 214 and analyzed using Percentage analysis and a one-sample-Test. The study was concluded that the digital environment is being used for advantage purposes.

OBJECTIVES OF THE STUDY

- 1. To study the respondent's opinion in regards to online examinations.
- 2. To examine the impact of the online examination on academic performance.
- 3. To investigate the problems faced by the students during the online examination.

SCOPE OF THE STUDY

The study was carried out among undergraduate and postgraduate students. Only the impact of arts and science students was brought into reference. The estimation of the outcomes was based on the respondent's review. The investigation of the efficiency was liable to the new method (online exam).

LIMITATIONS OF THE STUDY

- 1. The study was limited to 100 respondents.
- 2. The study was focused only on UG and PG students.
- 3. Results of the research were declared based on respondents' answers so the result might be biased or uneven.

PROBLEM STATEMENT

Since the online mode of the exam has many drawbacks such as time depleting, difficulty deciphering the examination manually. Many invigilators are compelled to monitor the exams of many courses. Examination Results might not be accurate since calculations are made based on the user's input. The possibility of renouncing an exam's result is higher in the current method of examination mode, checking of results is time-consuming. Online examination system saves the exam data in a database, and this makes it a manageable direction to give exam teachers can add their exams rules. Students can give exams in a computerized technique.





RESEARCH METHODOLOGY

The research was empirical and descriptive. Primary data and secondary data were collected respectively. Primary data was collected through well-structured questionaries and circulated among 100 respondents from UG and PG. Secondary data was collected through journals, books, and websites. Convenience sampling was used. Percentage analysis, Chi-square, ANOVA, and Factor analysis were used for the study and investigated using SPSS (Statistical Package for Social Science)

ANALYSIS OF DATA

S.no Factor **Dominant factor** Percentage 1 Age in years 17-19 34 2 Gender 88 Female 3 Area of residence Urban 61 4 57 Stream Commerce 5 Course UG 55 6 Year of study Ι 47

TABLE 1: DEMOGRAPHIC PROFILE OF THE RESPONDENTS

Source: Primary data

Table 1 shows that the majority of the respondents fell under the age group of 17-19, 88% of the respondents were female, 61% of the respondents were from the urban area, 57% respondents were from Commerce stream, 55% of the respondents were from UG and 47% of the respondents were from 1^{st} year.

TABLE 2: ASSOCIATION BETWEEN STREAM AND GRADES

H₀ There is no significant difference between the stream and worrying about grades.

H₁ There is a significant difference between the stream and worrying about grades.

Pearson chi-square	Degree of freedom	Asymptotic
Value		Significance (2 sides)
16.723 ^a	5	.003





Source: Primary data

Table 2 shows that Pearson chi-square value 16.723^a with calculated value .003. Since the calculated value is lesser than 0.05, the null hypothesis was rejected. Hence there is a significant difference between the stream and worrying about grades.

TABLE 3: ASSOCIATION BETWEEN COURSE, EXAM PREPARATION, AND GRADES

H₀ There is no significant difference between the course and the worrying about exam preparation.

H₁ There is a significant difference between the course and worrying about exam preparation.

 \mathbf{H}_0 There is no significant difference between the course and worrying about the grades.

H₁ There is a significant difference between the course and worrying about the grades.

Factor	Degree of freedom	f-statistic score	Significance
The course and worrying about the exam preparation	2	7.589	.262
The course and worrying about the grades	2	8.508	.000

Source: Primary data

Table 3 shows that the f-statistic score of factors worrying about exam preparation has shown 7.589 with .262 as a Significance value. Since the Significant value is greater than 0.05, the Null hypothesis was accepted. Hence there is no significant difference between the course and worrying about exam preparation. The f-statistic score of the course and worrying about the grades have shown 8.508 with .000 as a significant value. since the Significant value is lesser than 0.05, the alternative hypothesis was accepted.Hence there is a significant difference between the course and worrying about the grades.

TABLE 4: ASSOCIATION BETWEEN YEAR OF STUDY AND SATISFACTION WITH PAPERSTRUCTURE

 H_0 There is no significance between the year of study and satisfaction with the exam paper template. H_1 There is a significance between the year of study and satisfaction with the exam paper template.





Vol. 2(1), January 2022, pp.24-34

Year and satisfaction about paper template	Sum of square	Degree of freedom	Mean square	f-statistic score	Sig
Between	.173	2	0.86	600.872	.551
Groups					
Within	13.937	97	.144		
Group					

Source: Primary data

Table 4 shows that the sum of squares gives a measure of the variability in the score due to a particular score of variability. The degree of freedom column indicates the degree of freedom between groups as i.e., 3-1, for within-group as 97 i.e., 100-3. The f value is 600.872 with a p-value of .551 so the p-value is greater than 0.05, the null hypothesis was accepted. Hence there is no significance between the year of study in the course and satisfaction with the exam paper template

TABLE 5: ASSOCIATION BETWEEN YEAR OF STUDY AND DEPRESSION ABOUT GRADE

H₀ There is no significance between the year of study and depression about grades.

H₁ There is a significance between the year of study and depression about grades.

Pearson chi-square	Degree of freedom	Asymptotic
Value		Significance (2 sides)
16.942 ^a	2	.002

Source: Primary data

Table 5 shows that Pearson chi-square value 16.942^{a} with a calculated value of .002. Since the calculated value is lesser than 0.05. the null hypothesis is rejected. Hence there is a significant difference between the year of study and depression about the grades.





FACTOR ANALYSIS OF PROBLEM ENCOUNTERED BY THE RESPONDENTS

TABLE 6: KMO AND BARTLETT'S TEST

KMO measure of sampling	.873
accuracy	
App chi-square	1249.815
Degree of freedom	120
Sig	.000

Source: Primary data

Table 6 shows that Kaiser-Meyer-Olkin Measure is an index that defines sampling adequacy. The KMO test value is 0.873 which is more than 60% can be considered acceptable and valid to perform data reduction techniques. Bartlett's test spherically assists the researchers to predict the result of the factor analysis is worthy to continue.

Compone	Initial Eigenvalues		Extraction	n Sums of Squa	red Loadings	
nt	Total	% of	Cumulative	Total	% of	Cumulative
		Variance	%		Variance	%
1	7.635	47.717	47.717	7.635	47.717	47.717
2	2.889	18.059	65.776	2.889	18.059	65.776
3	1.022	6.388	72.164	1.022	6.388	72.164
4	.877	5.481	77.645			
5	.572	3.577	81.222			
6	.538	3.363	84.585			
7	.467	2.917	87.502			
8	.385	2.406	89.908			

TABLE 7: TOTAL VARIANCE EXPLAINED





Vol. 2(1), January 2022, pp.24-34

9	.352	2.201	92.109		
10	.300	1.878	93.987		
11	.252	1.577	95.564		
12	.196	1.227	96.791		
13	.165	1.034	97.825		
14	.142	.890	98.715		
15	.109	.680	99.396		
16	.097	.604	100.000		

Source: Primary data

TABLE 8: ROTATED COMPONENT MATRIX

Component matrix				
		Component		
	Ι	II	III	
Face detection		.673		
Noise problem		.792		
Notification issue		.689		
Gesture		.678		
Uploading issues	.754			
Issues in downloading question paper	.648			
Fear of loss of mobile data	.617			
Fear of power cut	.792			
Fear of credential	.712			
Non-availability of device	.668			



Vol. 2(1), January 2022, pp.24-34



Connectivity issues	.832	
Eyestrain		.783
Back pain		.832
Neck pain		.809
Headache		.768
Depression		.779

Source: Primary data

Tables 7and8 show that the 16 variables were limited into 3 factors with a cumulative variance of 72.164%. The 1st factor compresses of uploading issues, issues in downloading question papers, fear of loss of mobile data, fear of power cut, fear of credentials, non-availability of device and Connectivity issues these factors were named as **"Technological complications"**, the 2nd factor compresses of face detection, noise problem, notification issue, gesture these factors were named as **"Exam Credentials"** and the 3rd factor compresses of eyestrain, back pain, neck pain, headache and depression these factors were named as **"Health issues"**. These 3 factors separately have the variance of 47.717,18.059, and 6.388.

TABLE 9: OPINION ABOUT RECOMMENDATION OF ONLINE EXAMS IN FUTURE

S.no	Factor	Percentage
1	Yes	49
2	No	51
	Total	100

Source: Primary data

Table 9 shows that 51% of the respondents were frustrated in online examinations.

SCOPE FOR FURTHER RESEARCH

The current study has been carried out on the impact of online examinations, especially for UG and PG students. The same research can be conducted in other areas like Engineering, Law, etc. Also, the same research can be conducted for M.Phil., Ph.D., and diploma examinations.



Vol. 2(1), January 2022, pp.24-34



FINDINGS

- 1. Majority of the respondents fell under the age group of 17-19.
- 2. Majority of the respondents were female and belongs to the Commerce stream.
- 3. 61% of the respondents were from urban areas.
- 4. 47% of the respondents were from I year.
- 5. Commerce stream respondents were apprehensive (depressed) about the exam grades.
- 6. Undergraduate respondents were not impatient about the exams but they are worried about grades.
- 7. First-year students were not satisfied with the examination paper template.
- 8. Respondents were facing health issues during the online examination period.
- 9. 51% of respondents were frustrated about the online examination.

SUGGESTIONS

- 1. Students should be to adapt themselves to changing nature and must prepare themselves accordingly.
- 2. Students should attend their internal exam with sincerity which will later help them to attend the main exams/examination.
- 3. Professors of an institution can give multiple assignments, classwork, test to prepare the students mentally for exams.
- 4. Online exams can be conducted with a student-friendly procedure and hassle-free uploading methods to avoid inconvenience during the examination period.
- 5. The method of the examination can implement in a hybrid model that is both online and offline.

CONCLUSION

The current research was focused on the impact of online examinations among students in higher education. As per the findings of the study Undergraduate and Postgraduate students were worried about the grades and the exam paper patterns. The Undergraduate, Commerce stream students were disheartened about online examinations and students had faced a lot of health issues during the exam period. Hence the study concludes that online examinations have established a negative impact among undergraduate learners.



Vol. 2(1), January 2022, pp.24-34



REFERENCES

Blessyirene(2021) "effectiveness of e-learning to conventional learning in the pandemic period", Utkal historical research journal, volume XXXIV 2021, ISSN 096-2132.

Devayani. KS (2020) "A Study on information search and retrieval in digital education among college students", Emerging trends in a digital era, ISBN: 978-81-949577-8-2.

Dr.Malarvizhi. K(2021) " A study on students facing digital and technological issues in the academic year 2020-2021", Utkal historical research journal, volume XXXIV 2021, ISSN 096-2132.

Nithya.M, Dr.Rajamanar. K "Digital education in India", Emerging trends in a digital era, ISBN: 978-81-949577-8-2.

Dr.Selviamercy.D(2021) "Virtual education-benefits and challenges", Utkal historical research journal, volume XXXIV 2021, ISSN 096-2132.

Tamilarasi. C, Dr.Kamatchi.S(2021) "Impact of Online Classes on School Students During Covid -19 Pandemi", Svādhyāya - International Journal of Transdisciplinary Research and Development (SIJTRD) VOL.1(2), DEC 2021, PP 9-16.

Websites

[1] https://www.skymetweather.com/content/lifestyle-and-culture/the-impact-of-online-learning/

[2] https://www.weforum.org/agenda/2020/04/coronavirus-education-global-covid19-online-digital-learning/

[3] <u>https://www.indiatoday.in/education-today/featurephilia/story/effects-of-online-education-on-mental-and-physical-</u> health-1854320-2021-09-18

[4] https://elearningindustry.com/side-effects-of-online-education

[5]<u>https://www.brookings.edu/blog/brown-center-chalkboard/2021/08/13/how-does-virtual-learning-impact-students-in-</u>higher-education/

[6]<u>https://www.onlineexambuilder.com/knowledge-center/exam-knowledge-center/advantages-and-disadvantages-of-online-examination-</u>

system/item10240#:~:text=It%20saves%20you%20money.&text=On%20top%20of%20that%20you,the%20students%20ta king%20the%20exam.

[7] <u>https://elearningindustry.com/online-assessment-on-the-educational-sector-impact</u>

[8]https://www.changeandstrategy.com/preview-change-

inevitable/#:~:text=%E2%80%9CChange%20is%20inevitable%3B%20change%20is%20constant.%E2%80%9D&text=It

%20is%20a%20fact%20of,actively%20embrace%20it%20will%20thrive.

Books

- [1] Business statistics, SP GupthaSulthana Chand publication
- [2] Research Methodology, C.R. Kothari, New Age International publishers.
- [3] SPSS, Dr. H Preamraj, Margham Publication.