



Approximation on the Effectiveness of E-Learning & Examinations Piloted during Pandemic Period: An Insight from Teacher's Perspective

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Abstract: The restructuring of conventional form of academic tests creates a new technological bubble during the pandemic period. The technology-oriented teaching-learning environment may substantially improve the efficiency of both the teaching and learning ends. Even though the E-learning pedagogy has the potential capabilities of cost effectiveness, reduced logistics requirements, minimal manual efforts and improved accuracy of marking schemes driven by advanced systems. Still it feels some sort of leakages in the efficiency of the ongoing evaluation methodology. This study specifically focuses on the perspectives of the teaching community regarding their assessment on the impact of online examinations and quality of information acquired by the student community and how they performed during the online tests as compared to the traditional method. It also assesses the chances of malpractices can be done by the candidates and how it may affect their end results and effectiveness of the online examinations. The attempt creates platform for the academicians to craft in-depth awareness to the student community as well as to suggest valuable recommendations to formulate exams which is free from loopholes and misconducts. For the purpose of testing the hypothesis the proposed study uses basic econometric tools and other quantitative techniques which are proficient to produce accurate test results.

Keywords: E-Learning, Virtual Examination Platform, LMS, Connectivity Constraints, Misconducts

I. INTRODUCTION

The pandemic influence had a significant impact on the shift from the conventional mode of education to a virtual platform. The extreme difficulties of personal interactions and acceptance of Covid-19 protocols lead to the shutdown of most of the educational institutions across the globe. Thus education is one among the in-excludable part of the economy it has to find out the alternative means for conducting the classes without any external disturbances. The present era is well advanced and equipped with technological know-how and it accentuates new gateways for the teaching-learning community through virtual education platforms.

The notions behind the online mode of examinations are not at all a strange concept to Indian education systems. The reason is that most of the competitive exams in India had been conducted through such means before as well namely the entrances for Law, Medicine, Civil Services, NET, SET, and so on. The major part of this is to examine is what all these are conducted on the authorized centers insisted by the responsible authorities from time to time. But for the existing scenario, the student communities should have to attend classes well as appear for exams from their own means. Here the availability of gadgets in every family is not at all on an equal basis. As a developing economy like India, it has its own difficulties to meet such shortages.

But due to this extreme pandemic condition, online examination portals are fetching obligatory for schools, colleges, and universities across the country. Most of the educational and training institutions are in touch with the pupils over What Sapp or Email. Institutions are steering classes on platforms such as Google Meet, Microsoft Teams, Zoom, etc. In India, The UGC is looking to have innovative practices of education standards. With the online shift fueled by the spread of the pandemic, this is a huge relief for Indian academicians of all kinds.

IIMK is one of the principal institutes that have opted for the online exam route. Likewise, most of the educational institutions irrespective of aided or private or central or state universities and school education streamlines the fast-paced growth of employing technology in education just transformed the pen and paper exams out-of-date. There are several benefits to using an online test especially the reduced

logistic costs and ease of use for the present generation as most of them are well equipped with the insisted platforms for classes and exams. These platforms may improve the efficiency of valuation of results with the least errors due to reduced human physical interventions.

The fingertip availability of vast reference resources and easy access to question banks may improve the morale and proficiency of the student community. But every new beginning has its own advantages and disadvantages. Therefore, the proposed study is an attempt to evaluate the performance of the virtual educations standards from the perceptions and acceptance of the academicians' point of view.

Anyhow in the mere future, the acceptability of innovative education standards will tend to expand at large. As per several secondary reports, there are many reliable platforms are developed to provide secure and a fault-free exam environment with the help of artificial intelligence. These platforms serve online reserves of study references helpful for both the teaching and learning community.

II. REVIEW OF LITERATURE

Gonzalez and et al. (2020). the investigation revolves around the impact of the Covid-19 student community especially the pupils who are pursuing higher education. The study looks into the data of 2017-18, 2018-19, and 2019-2020 batches of students and their performance analysis related to pre and post Covid-19 scenarios. The attempt used 438 sample respondents from three different streams at Universidad Autónoma de Madrid (Spain). The study results elucidate a momentous correlation between student's improved performances during the period of Covid-19 from the results of comparative analysis. Before the confinement the learning pattern of the students was irregular and it lacks continuity is revealed by the findings of the study.

Lina and et al. (2020). A cross sectional study has been initiated among the medical and nursing students in the remote outskirts of Jordan. The study outcome postulates the negative impact of e-learning and virtual mode of examinations. Thus the inferences of the test results provide genuine information about the gender-based increase in the stress level of the pupil in accordance with the anxiety about the connectivity issue in the rural areas. The pilot run of the online examination itself creates a sense of pressure among the student community. Thus the study concludes that e-learning and assessments will generally increase unnecessary stress and pressure among the student community in Jordan.

Sabina and et al. (2020) this paper aim to figure out the attitude of the physiotherapy students online examination introduced by the institution during the pandemic. Here the case analyzers are concerned about the technical problems and the possible suggestions to tackle the same. The attempt employs a descriptive study approach with the use of primary data with which 295 respondents were randomly selected from the physiotherapy department itself. Here the study results project the positive inclination and attitude of the physiotherapy students towards the online mode of examination.

III. OBJECTIVES OF THE STUDY

To assess the efficiency of online examinations compared to traditional patterns.

To examine the major difficulties faced by both the student and teaching community with respect to online examinations and virtual teaching standards.

To identify the magnitude of information acquired by students through the virtual model of learning as compared to traditional methods.

IV. STATEMENT OF PROBLEM

The digital learning platforms might reduce logistics costs and improves the technological knowledge of the working forces including the teaching-learning cluster. When it comes to the evaluation of the end results and the level of know-how assimilated by the students might create a dilemma in the minds of evaluators and academicians. The ethical way of approach from the student community towards the examinations and assessment put forwarded by the institutions will remain a major concern. Usually, the slow learners also will perform as comprehend enough with the quick learners tends to question the effectiveness and quality of the examination strategies put forwarded by the institutions. More clearly defines the chances of malpractices and drop down in the efforts from student cluster to approach the examinations as compared to the conventional patterns.

V. SIGNIFICANCE OF THE STUDY

The main title (on the first page) should begin 1 3/16 inches (7 picas) from the top edge of the page, centered, and in Times New Roman 14-point, boldface type. Capitalize the first letter of nouns, pronouns, verbs, adjectives, and adverbs; do not capitalize articles, coordinate conjunctions, or prepositions

VI. RESEARCH QUESTIONS

Does an online assessment reduce the quality of students?

How online examination's results are better than traditional results with respect to Pass Percentage?

VII. HYPOTHESIS

7.1. Hypothesis: 1

H₀: There is no substantial difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination pattern.

H₁: There is a substantial difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination pattern.

7.2. Hypothesis: 2

H₀: there is no significant relationship between sound connectivity and attendance percentage of student cluster.

H₁: there is a significant relationship between sound connectivity and attendance percentage of student cluster.

7.3. Hypothesis: 3

H₀: there is no momentous association between the ready availability of study materials and reduced attention towards virtual lectures.

H₁: there is a momentous association between the ready availability of study materials and reduced attention towards virtual lectures.

VIII. RESEARCH METHODOLOGY

8.1. Study design

The initiated attempt is an exploratory descriptive study based on the insights from the academicians regarding the effectiveness of online mode of examinations. The study plans to collect 56 samples from various school and university faculties.

8.2. Data source

Primary information has been collected from various teachers and academicians of diverse institutions through online interviews and google designed questionnaires.

8.3. Sample Size: The sample size taken for the preferred study is 56. This 56 samples are derived from the google form responses and interviews.

8.4. Sampling Method

Cluster sampling is used for the convenience of the preferred study. Thus the study is more academic oriented it requires focus respondents for getting accurate responses for testing the results with non-existence of errors.

8.5. Analysis Software

Statistical Package for Social Science (SPSS) is the software used for analyzing the accuracy and relevance of the collected information.

8.6. Analysis tools

Chi-Square and independent t-test

IX. ANALYSIS AND INFERENCES

9.1. Hypothesis: 1

H₀: There is no substantial difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination pattern.

H₁: There is a substantial difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination pattern.

Table: 1. Cross Tab for the difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination.

Count	Improved pass percentage of online examination pattern					Total
	1.0	2.0	3.0	4.0	5.0	
Least possibilities of .0 malpractices compared to conventional examination.	2	1	24	20		47
1.0	3	2	0	2	2	9
Total	3	4	1	26	22	56

Table 2. Independent T-test result

Variables	Improved pass percentage of online examination pattern	N	Mean T	Significance
Least possibilities of malpractices compared to conventional examination.	No	47	4.272	5.338 0.001
	Yes	9	2.627	

The output generated from the above analysis invokes the robust difference of opinion between improved pass percentage of online examination pattern and least possibilities of malpractices compared to conventional examination pattern. In other words, test scores nullify the null hypothesis at a notable 'P' score of 0.001 that is <0.005 with a more comprehend T – statistic value of 5.338. The produced outcome infers that the teaching community is having a strong agreement or positive attitude towards the improved pass percentage of student communities through the online mode of examinations.

On contrary, the result also indicates the least confidence among the teaching community regarding the chances of malpractices and misconducts done during the course of online examination might be minimal as compared to the traditional method. Almost 85% of the sample respondents are expressing their

opinion as the possibilities of malpractices and misconduct will be more in the online platform rather than the paper-pen based test.

9.2. Hypothesis: 2

H0: there is no significant relationship between sound connectivity and attendance percentage of student cluster.

H1: there is a significant relationship between sound connectivity and attendance percentage of student clusters.

Table 3. Chi-Square Result for significant relationship between sound connectivity and attendance percentage of student cluster.

Chi-Square	Value	Degrees of freedom	Asymp. Sig. (2-sided)
Pearson Chi-Square	107.196 ^a	4	.000

The outcomes of the chi-square tests postulate the stand out association between the observed and explanatory variables. Where the chi-square value = 107.196 at a highly significant 'p' value of .000 which completely reliable without .1% of error at 5% significance level. The analysis produces genuine information regarding the dependence of sound connectivity with respect to the progression of the attendance percentage of the scholars.

Thus the presents of each student for a virtual class session are indicated by his/her login credentials. If the connectivity issue arises frequently for an odd number of students rather than a considerable group, then there is more probability of losing the attendance percentage. This could be manipulated disconnection or even genuine connectivity issues but the dilemmas expressed by the academicians tends us to reach the conclusion that if he/she is not producing the convincing reason for the connectivity loss they have to bear the consequences of attendance shortage. Therefore, we can reject the null hypothesis and infer that there is a remarkable relationship between wide-ranging connectivity and the percentage of attendance.

9.3. Hypothesis: 3

H0: there is no momentous association between the ready availability of study materials and reduced attention towards virtual lectures.

H1: there is a momentous association between the ready availability of study materials and reduced attention towards virtual lectures.

Table 4. Chi-Square Result for the association between readily availability of study materials and reduced attention towards virtual lectures.

Chi-Square	Value	Degrees of freedom	Asymp. Sig. (2-sided)
Pearson Chi-Square	113.796 ^a	4	0.003

Since the chi-square value is = 113.796 at a stand-out significance score of 0.003 which lies in between the 5% error benchmark of <0.005. Thus the above analysis score comprehends enough to reject the null hypothesis and elucidate that there are more chances of drop-in classroom attention in virtual modes due to the easy access to study materials than before. During the course of the conventional mode of teaching, the academicians prefer to give physical notes rather than giving soft copies and PPTs. But now in an

online platform that one-one attention is fading and the student community can get easy access to their study materials with the help of LMS portals and other advanced means.

Thus it indicates two dimensions of technological development firstly; the student cluster is consecrated with the ready availability of notes and doesn't have to bother about the same before the time of examination. Secondly, if he/she is getting the notes at a time in their goggle classroom or any other online means, it may create an impression that anyhow the learning cluster is receiving the reference notes at time so there is the possibility for more relaxation and chances of paying least attention to virtual lectures as well.

X. FINDINGS AND SUGGESTIONS

10.1. Improves the Pass Percentage

The test results of the conducted analysis were reliable enough to prove that the paper clearance of the student cluster is far better in online mode compared to the traditional mode of examinations. About 85% of the academicians are agreeing with the fact that the online examination strategy has predominantly increased the student's pass percentage.

10.2. Connectivity issues

One of the major difficulties faced by the teaching-learning community is the availability of sound connectivity. This is not only because of the lack of advanced gadgets but also depends upon the server provider's bandwidth as well. In order to tackle this issue role of the government is quintessential to provide secure connectivity across the country by getting proper assurance from service providers.

10.3. Degree of Absence is high

As per the mentioned connectivity issues, the level of attendance percentage of the pupils will come down drastically and will adversely affect their internal marks point of view and even create trepidations about the acceptance to appear for exams in extreme cases. Improving connectivity bandwidth and secured online monitoring is needed to curtail this issue.

10.4. LMS (Learning Management System) access reduces class attention

The ready availability of study materials may create a sense of relaxation in the mind of the pupil may tend to result in a drop in the level of concentration and attention towards the virtual lectures. The uploading of study materials should be customized accordingly which never deviates the candidate's attention.

10.5. A high degree of malpractices

Provision to mute audios and cameras may lead to virtual class bungs and during the course of examination use of multiple gadgets and student's conference group can pool answers and paste the same can deteriorate the quality and efficiency of virtual examination standards Butler and Crawford (2020). Time scheduled exams should be conducted with 360-degree camera surveillance in the respective rooms which they are decided to sit for exams.

10.6. Presents of parent's Support

For securing a proper score for the child's stand-out academic credentials at some points parents also may support the pupil to conduct the misconduct which ultimately produces a positive output for his/her results. A proper awareness program should be initiated and given for parents to restrict such practices by the pupil in their presents.

XI. CONCLUSION

The estimation of online education's efficacy can be revealed to a certain extent by the means of this study. But still, the study is not able to cover up all the dimensions of virtual pedagogies. Meanwhile, the attempt produces valuable results regarding the general concerns and prospects of e-examinations and its current status among institutions. If the minor defaults of e-learning are excluded by accentuating more comprehensive strategies will take this mode of education to further heights. The technological barrier and poor level of connectivity are the major concerns of developing and underdeveloped economies. If the government role is well directed to address these kinds of issues, then it can be easily eliminated and can run fault-free assessments across countries. There is wide scope for related study from various dimensions of e-learning like the economics of e-learning, global acceptance of e-certificates and e-credentials.

XII. LIMITATIONS OF THE STUDY

This attempt has given due stress on the opinions and concerns from academician's point of view regarding the efficacy of virtual learning and examinations. The pandemic protocols and reduced individual movements has limited the study to collect information from the field, thus it prefers online mode of data collection and not tried to give more information from the student cluster. In this regard there is enough scope and opportunities for further studies by incorporating the insights of the learning community for a better learning model estimation.

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