Analysis of Student Performance of Directorate of Education in Economics Online Class (XI) with reference to 5th November 2020

NIDHI MADAN
Assistant Professor
SCERT, DELHI

Abstract

As Covid-19 has become a global pandemic which has affected every single side of life, education is not the exception to it. This global pandemic has entirely shifted the nature of the teaching-learning process going in India from offline to online mode. This transformation has challenged the entire educational system to think out of box and built up the new infrastructural facilities which are more ICT prone. The emergence of online classes for learners is the most significant step taken by the Directorate of Education. The Directorate of Education has taken up the role of a bridge between the Delhi Government teachers and students. So, in this paper, the researcher will analyze the online class (XI) of Economics by using descriptive statistics i.e. mean and median. The information will be diagrammatically presented on the basis of 27399 responses collected from the XI class which was broadcasted on 5th November 2020.

Keywords: Covid-19 (Global pandemic), Online class (through the use of ICT), Class XI students.

Introduction

The Outbreak of Covid-19 has resulted in the shutdown of schools all over the world. Nearly, over 1.2 billion children are out of the school globally. This scenario has changed the school stakeholder’s way of looking out the worldwide educational system. The sudden increase in use of ICT and e-learning platforms has paved the way for the teachers in building contacts with their children. So, the need of the hour has been the adoption of digital platforms which has been accepted and adopted by the Directorate of Education with Open hands. Keeping in view this need, Directorate of Education has started the online classes for XI and XII in various subjects. In this very paper, the researcher will analyze the Economics online class of XI dated 5th November 2020.
A lot of work has been done regarding online learning or e-learning in the present scenario. Some studies are highlighted below:

A study based in the kingdom of Saudi Arabia by Intakhab A. Khan (2016) addresses the usefulness of e-learning in English education for Saudi students. It says that the involvement of the learners is an important aspect and e-learning through its innovative methods help students relate to the techniques with ease. Resource generation, usefulness and effectiveness for students were some of the factors that were highlighted by the study as a mark of success of e-learning in English education for students in Saudi Arabia. Rhema and Miliszewska (2014) conducted a study on “Analysis of Student attitudes towards e-learning: The Case of Engineering Students in Libya”. The objectives were to analyze the relationships between student attitudes towards e-learning and their demographic characteristics, access to technology, use of technology for learning, skill in technology and satisfaction with technology. Sample was 348 undergraduate engineering students from the departments of Electrical Engineering and Petroleum Engineering from University of Tripoli and University of Al-Jabal Al-Gharbi. Research Design used was Survey. Tool used for Data collection was a questionnaire. Major findings of the study revealed that all the participating students had positive attitudes towards e-learning and ICT; they felt confident in using computers, enjoyed using ICTs in their studies, believed in the benefits of e-learning and would be interested in studying courses that used e-learning. Students believed strongly that e-learning would give them the opportunity to acquire new knowledge and enhance their learning experiences. Students reported moderate enjoyment of using ICT for studies. The results showed that female and male students had positive attitudes towards technology. Male students felt more confident in using computers and enjoyed using ICT for their studies more than the female students, whereas female students believed stronger that e-learning enhanced their learning experience. There were no significant differences in the levels of attitudes towards ICT and e-learning between younger and older adults, or first year students and students in other years of study. There was no significant difference between female and male students, or between urban and regional students with respect to their attitudes towards ICT and e-learning. Lam, Lee, Chan & McNaught (2010) in their study on “Students’ use of e-learning strategies and their perceptions of e-learning usefulness”. The objectives of the study were to study undergraduate students’ perceptions towards the use of technology for teaching and learning and to study students’ previous experience in using technology, in particular various e-learning strategies, affect their perceptions of the value of e-learning. The sample of the study consisted of 1438 students at the Chinese University of Hong Kong. Survey was conducted. The finding of the study revealed that students were generally positive about various forms of e-learning. Students who were more experienced in using technologies in their everyday lives were in general more positive about e-learning strategies. Most interestingly, the more experience students had with e-learning strategies, the more positive they were towards e-learning as well. It was evidence that e-learning has provided learning benefits to the students. Hung, Chou, Chen and Own (2010) conducted a search on “Learners’ Readiness for Online Learning: Scale Development and Student Perceptions”. The objective of this study was to develop and validate a multidimensional instrument for college students’ readiness for online learning. Sample of the study consisted of 1051 college students in five online courses in Taiwan. Tool used for data collection was Online Learning Readiness Scale (OLRS) was dimensions: self-directed learning, motivation for learning, computer/internet self-efficacy, learner control and online communication self-efficacy. Major findings of the study revealed that students’ level of readiness was high in computer/internet self-efficacy, motivation for learning and online communication self-efficacy and were low in learner control and self-directed learning. The study found that gender made no statistical differences in the five OLRS dimensions, but that higher grade (junior and senior) students exhibited significantly greater readiness in the dimensions of self-directed learning, online communication self- efficacy, motivation for learning and learner control than did lower grade (freshman and sophomore) students. Boumedyen et. al (2011) found that classes that incorporate use of software and computers while teaching has significant effect on marks even without taking online examination. Secondly, the marks obtained by those students who use multimedia in the classroom even if no other software is being used and the students correspond with the trainer through mail and appear for online examination, is higher than the students for whom multimedia was not used. Thirdly, the marks scored by the students was the best who were neither taught through books in the classroom nor with the help of physical models but instead were taught with the help of a software and the students communicated with the
instructor on mail. Largely, the findings demonstrate that teaching without the use of books gives better results and also improves the performance of the students.

**Statement of the Problem**

“Analysis of Student Performance of Directorate of Education in Economics Online Class (XI) with reference to 5th November 2020”.

**Research Objectives**

O1 To study the average score of the students’ performance.
O2 To examine the student’s performance in relation to gender and type of school.
O3 To assess the question-wise performance of the students.

**Operational Definitions**

**Online Class**: It is generally a mix of live lecturers or the video recordings by the instructors over the internet. It is supplemented through learning management system along with assessment done.

**Student Performance**: It shows the extent to which a student has performed in the given instructional material.

**Delimitations of the Study**

- Study is restricted to online class by the Directorate of Education only.
- The study is delimitied to only one subject i.e. Economics.
- The study is confined to only one online class of Economics i.e. 5th November 2020.
- The study is confined to only class XI.

**Statistical Techniques Used**

- Descriptive Statistics - Mean and Median.
- Diagrammatic Presentation - Pie Diagram and Percentage Bar Diagram.

**Sample and Procedure**

Sample is comprised of responses of 27399 students only. The responses of the concerned class were collected through the self-constructed Google form.

**Data Analysis**
1. Width of rectangles in a histogram should essentially be equal. आयतचित्र में आयतों की चौड़ाई आवश्यक रूप से एक समान होनी चाहिए।

18,819 / 27,399 correct responses

2. In Pie diagrams, absolute values of the series are converted into cumulative values. कृत्तिय आरेखों में किसी श्रेणी के निर्देश कुलों को संचयी मूल्यों में बदला जाता है।

19,490 / 27,399 correct responses

3. Histogram is a graphical presentation of a frequency distribution of a discrete series. आयतचित्र वह रेखाचित्र है जिसमें विविध श्रेणियों के आवृत्ति वितरण का प्रस्तुतीकरण किया जाता है।

18,403 / 27,399 correct responses

4. If a household spends 75% of his income on food, then degree measure of an angle in the pie diagram should be. अगर एक गृहक का 75% खर्च खाने की वाणिज्यता में की जाती है तो उसका डिग्री प्रकाश क्या होना चाहिए?

19,679 / 27,399 correct responses
5. Histogram is also drawn for unequal class intervals. आयत चित्र असमान वर्गांतर के लिए भी बनाया जाता है।

21,245 / 27,399 correct responses

6. Bar Diagram is .......dimensional diagram, while Histogram is .......dimensional diagram. दंड आरेख .......विमी आरेख, जबकि आयत चित्र .......विम आरेख है।

18,594 / 27,399 correct responses

7. In which situation, width of the rectangles of a histogram be unequal? किस स्थिति में आयत चित्र के आयतों की चौड़ाई असमान होगी?

20,421 / 27,399 correct responses
8. Height of the rectangles of histogram depends on the ........... आयत चित्र के आयतों की ऊँचाई ........ पर निर्भर करती है।

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Width of the class intervals</td>
<td>3566 (13%)</td>
</tr>
<tr>
<td>✓ Frequencies of the class intervals</td>
<td>20145 (73.5%)</td>
</tr>
<tr>
<td>Both of the Above उपरोक्त दोनों</td>
<td>2893 (10.8%)</td>
</tr>
<tr>
<td>None of the Above उपरोक्त कोई भी नहीं</td>
<td>702 (2.9%)</td>
</tr>
<tr>
<td>Frequencies of the class</td>
<td>2 (0%)</td>
</tr>
<tr>
<td>Both of the Above उपरोक्त दोनों</td>
<td>1 (0%)</td>
</tr>
</tbody>
</table>

9. In which diagrammatic presentation, absolute values of the series are converted into percentage values? किस रेखाचित्रीय प्रस्तुतिकरण में, किसी श्रृंखला के निर्पेक्ष मूल्यों को प्रतिशत मूल्यों में बदला जाता है?

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simple Bar diagram सरल दंड आरेख</td>
<td>2841 (10.4%)</td>
</tr>
<tr>
<td>Histogram आयत चित्र</td>
<td>3328 (12.1%)</td>
</tr>
<tr>
<td>✓ Pie diagram वृत्त आरेख</td>
<td>20141 (73.5%)</td>
</tr>
<tr>
<td>None of the Above उपरोक्त कोई भी नहीं</td>
<td>1089 (4%)</td>
</tr>
</tbody>
</table>

10. Identify the following diagram. निम्नलिखित आरेख/चित्र को पहचानिए -

<table>
<thead>
<tr>
<th>Option</th>
<th>Frequency</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pie diagram वृत्त आरेख</td>
<td>1326 (4.8%)</td>
</tr>
<tr>
<td>Bar diagram दंड आरेख</td>
<td>3843 (14%)</td>
</tr>
<tr>
<td>✓ Histogram आयत चित्र</td>
<td>21645 (79%)</td>
</tr>
<tr>
<td>None of the Above उपरोक्त कोई भी नहीं</td>
<td>585 (2.1%)</td>
</tr>
</tbody>
</table>
Findings

* The average score of students is 7.25/10.
* Female students respond more to the google form compared to male students.
* The participation of government school students is more than the other ones.
* The percentage of the correct responses by students in every question is more than 67%.

Conclusion

One can conclude through data analysis that the performance of the students in this specified online class is highly satisfactory. Females responded more than males’ students. The participation of the government school students is more than the other type of school.

References


