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A COMPARATIVE STUDY OF PERFORMANCE BETWEEN ONLINE AND OFFLINE EDUCATION

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Abstract : The rapid advancement of technology has significantly transformed the landscape of education, offering new avenues for learning through online platforms. This research paper aims to conduct a comprehensive comparative analysis of the performance outcomes between online and offline education. By examining the effectiveness, challenges and student outcomes associated with both modes of education, this study seeks to provide valuable insights into the strengths and limitations of online education compared to traditional offline methods. The research employs qualitative and quantitative methods, including surveys, interviews, and academic performance analysis, to gather relevant data and draw meaningful conclusions.

Education system experiences a gradual shift during covid-19. The old orthodox method offline or classroom switch to online based education experience. Since, then the urge to dig out and collate the performance of students becomes the new interest of researchers**.**

Index. **Technology, education, etc.**

I. INTRODUCTION

The global education landscape has undergone a significant transformation with the proliferation of online education platforms and the integration of digital technologies into traditional educational practices. As a result, the debate surrounding the comparative performance of online and offline education has become increasingly pertinent. While conventional brick-and-mortar educational institutions offer a time-honored approach to learning, online education has gained traction for its accessibility, flexibility, and diverse learning opportunities. Understanding the nuanced strengths and limitations of both online and offline education is crucial for policymakers, educators, and stakeholders seeking to shape the future of the education sector and meet the diverse learning needs of students in an increasingly digital world.

The Rise of Online Education:

Online education has witnessed a substantial surge in popularity, driven by advancements in technology, improved internet connectivity, and the increasing demand for flexible learning options. The availability of a wide range of online courses, often provided by renowned educational institutions, has democratized access to quality education, breaking down geographical barriers and financial constraints

The Enduring Significance of Offline Education:

Conventional brick-and-mortar educational institutions continue to play a crucial role in the education sector, offering a structured learning environment that promotes face-to-face interaction, social development, and holistic learning experiences. The social aspects of offline education, including extracurricular activities, group discussions, and in-person networking opportunities, remain pivotal in nurturing well-rounded individuals with diverse skill sets and interpersonal competencies.

Comparative Performance Analysis:

Conducting a comprehensive analysis of the comparative performance of online and offline education involves evaluating various parameters, including learning outcomes, student engagement, technological integration, and educational accessibility.

Furthermore, student engagement and motivation play a vital role in determining the efficacy of online and offline education. Online learning platforms leverage interactive multimedia tools, gamified learning modules, and adaptive learning algorithms to enhance student engagement and promote self-paced learning. Conversely, offline education fosters active student participation through classroom discussions, group projects, and experiential learning activities, cultivating a sense of accountability, collaboration, and interpersonal skills among students.

The integration of technology serves as a key differentiator between online and offline education.

Bridging the gap between online and offline educational accessibility is imperative in fostering inclusive learning environments that cater to the diverse educational needs and aspirations of all learners.

Implications and Future Directions:

The comparative study of online and offline education serves as a foundation for understanding the evolving dynamics of the education sector and the potential for synergistic integration between digital and traditional learning modelsIntegrating adaptive learning technologies, fostering collaborative learning environments, and promoting digital literacy among educators and students are key considerations for fostering a holistic and inclusive educational ecosystem.

By embracing innovative pedagogical strategies, leveraging emerging technologies, and fostering a culture of continuous learning and adaptability, educational institutions can navigate the complexities of the digital age and prepare students to thrive in an increasingly interconnected and dynamic global society.

In this comparative study, we aim to explore the multifaceted dimensions of online and offline education, highlighting their respective strengths and limitations. By examining learning outcomes, student engagement, technological integration, and educational accessibility, we seek to provide valuable insights that can inform the development of effective educational policies, pedagogical practices, and technological interventions. Through a holistic understanding of the evolving educational landscape, we aim to contribute to the advancement of a comprehensive and inclusive educational ecosystem that fosters lifelong learning and empowers individuals to achieve their full potential in the digital era.

II. LITERATURE REVIEW:

According to Allo (2021), the impact of pandemic on education has become an important topic for researchers, considering the situation caused by Covid 19 virus. Besides, students give positive perception about e-learning and find it useful. Allo (2021) conducted a survey involving 424 universities around the world, which showed that education has been affected by the Covid 19 pandemic situation and online learning is very necessary to carry out educational activities (Suresh, Priya, & Gayathri, 2018). Teachers must be able to adapt to technological developments in the educational process, convey knowledge by e-learning (Sun, Tang, & Zuo, 2020). Khafit, Sulastri and Fauzan (2020) found that perceived usefulness, perceived ease of use, self-confidence, and subject matter norms have a significant positive effect on the use of e-learning in students. Some important features in the online process must be implemented to maximize learning in certain situations. Those important features are the administration and development of internet infrastructure to prevent interruptions, especially during video conferencing, the use of friendly tools to assimilate and understand students' information, provision of reliable, interactive and diverse electronic resources, the use of social networks to build students' online communities to reduce their feelings of isolation (Huang, Tlili, Yang, Chang, Wang, Zhuang, & Liu, 2020).

In research conducted by Dhawan (2020), online learning is as panacea in times of Covid 19 crisis and notes how online education system are being forced to engage in pandemics around the world while others still stuck with offline system. Dhawan (2020) has reported that Ed-tech start-ups are growing rapidly in delivering online learning and integrating multimedia. People experience various technologies difficulties as well as students lack motivation. This is a significant challenge for online education. However, with Ed-Tech start-up, students and teachers have the opportunity to learn comfortably, effectively and interactively, and solve many problems with better research with better technologies. The study of Parkes, Stein and Reading (2015) examined how equipped higher education institutions adopt e-learning and state that, while students are ready to cope with technologies employed in online schools, they are not as ready as they appear to be. The students did not have enough knowledge to think critically in managing the skills of technologies used during online learning including organizing methods, accuracy and concise response and summarization of thoughts.

According to Rachmah (2020), more students favour offline than online instruction, because students would understand better the materials being taught through offline teaching method. Listening abilities of students improve better in offline classroom. In research conducted by Allen, Bourhis, Burrell, and Mabry (2002), stated that replacing offline learning would result the decreased level of students' satisfaction because of various expectations over a system of learning. However, they said that distance learning is usually just as effective as offline learning, and this does not trigger attitudes to fall.

Brown and Liedholm (2002) demonstrated in their study that the outcomes of their GPA and ACT were somewhat better for the students in an online method than the offline method. A student investigation compared the outcomes discovered in microeconomics. This gap was more pronounced on hard problems and less significant on basic problems. One reason was that half of the online students reported having spent less than three hours a week and none reported having spent more than seven hours a week.

III. OBJECTIVES OF STUDY:

The objectives of the study may vary for other researchers. Some of the objectives of comparative study of performance between online and offline education are as follows:-

1. To know the performance level of respondents towards online and offline education.
2. To study the challenges faced in online and offline education.
3. To ascertain the features of online and offline education.
4. To offer suggestions to improve the performance of online and offline education.

IV. RESEARCH METHOLOGY

DATA COLLECTION:-

The study is based on both primary and secondary source of information. The primary data were collected from the respondents by structured questionnaire. An attempt is made in the paper to analyze the comparative study of performance between online and

offline education. Secondary data were collected from various websites and articles. Appropriate statistical tools also has been used to analyze the comparative study of performance between online and offline education.

SAMPLING DESIGN

I.) SAMPLE SIZE:

The sample size of the research is 50 respondents.

II.) SAMPLING TECHNIQUE:

The sampling technique which I have used in this research paper is simple random technique for the comparative study of performance between online and offline education.

III.) SAMPLE UNIT:

The sampling unit here used in this research is social unit i.e. friends and college students, etc.

The statistical tools used for the analysis are:

Simple Percentage Analysis:- Simple percentage analysis is a type of quantitative analysis in which percentage is used in making comparison between two or more series of data. A percentage is used to determine relationship between the series.

The type of statistical analysis in this research paper here used is descriptive statistics. It refers to collecting, organizing, analyzing, and summarizing data sets in an understandable format, like charts, graphs, and tables.

QUESTIONNAIRE DESIGN:

The questionnaire in this research paper is unstructured type which consists of questions related to the comparative study of performance between online and offline education.

Limitation of the study

The study was conducted to assess the comparative study of performance between online and offline education. The size of survey is limited to 50 respondents.

HYPOTHESIS

1.) Performance level of the respondents.

Majority of the students choose offline class because its more interactive and the survey shows that students prefer offline more because it has increased their performance .

HYPOTHESIS:

H0: Offline education does not increase performance .

H1: Offline education does increase the performance.

2.) Preference of online class

Data collected from the respondents majority of them prefer online education only because they want to increase their skills or they prefer it because they want to do course certification or just skill enhancement.

HYPOTHESIS:

H0: Student do not prefer online class for skill enhancement.

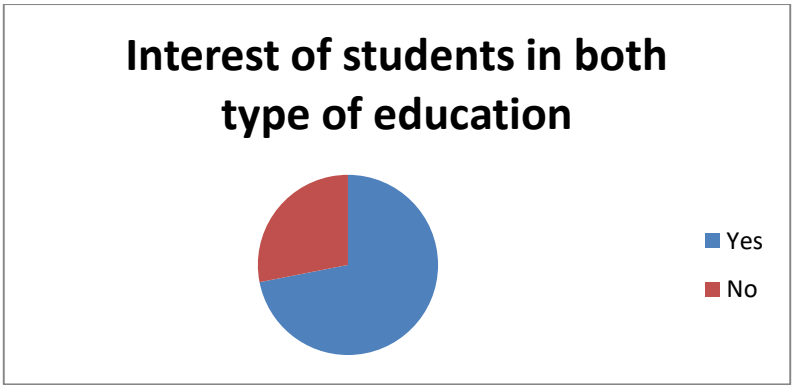
H1: Student prefer online class for skill enhancement.

V. DATA ANALYSIS

The data analysis and interpretation of this research paper is done through SPSS software. In this research paper I have shown the percentage level of performance between online and offline education with the help of questionnaire. And also have find out the drawbacks and problems faced during and after the pandemic.

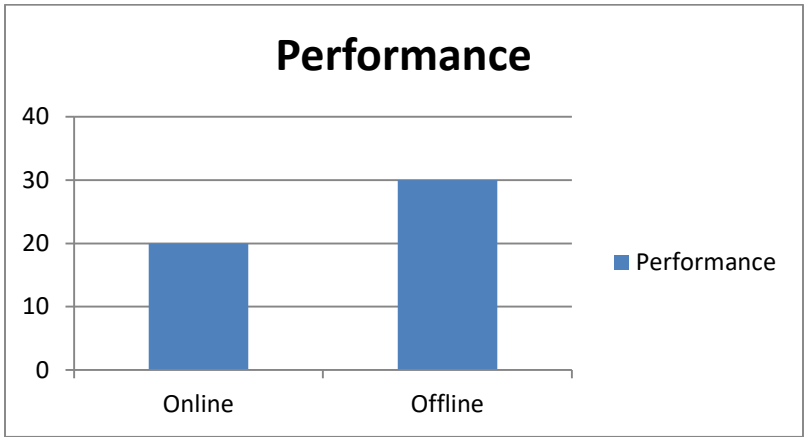
Percentage level of interested students in online and offline education

In this pie chart it shows the level of interested students in online and offline education. Majority of the students are interested in online education and rest of the students are interested in offline education.



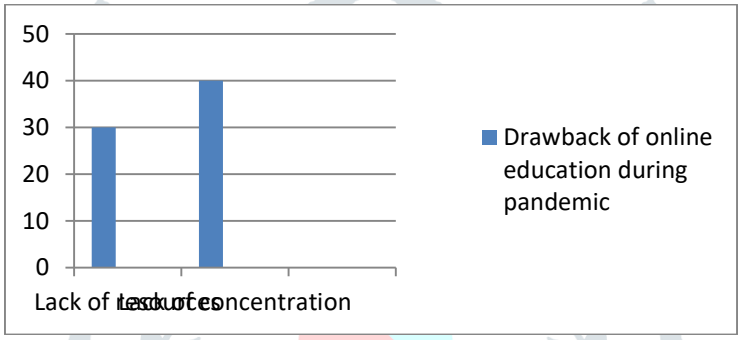
Performance based on online and offline education

From this bar graph we can interpret that the performance of students who persue offline class is far better than the students persuing online classes.



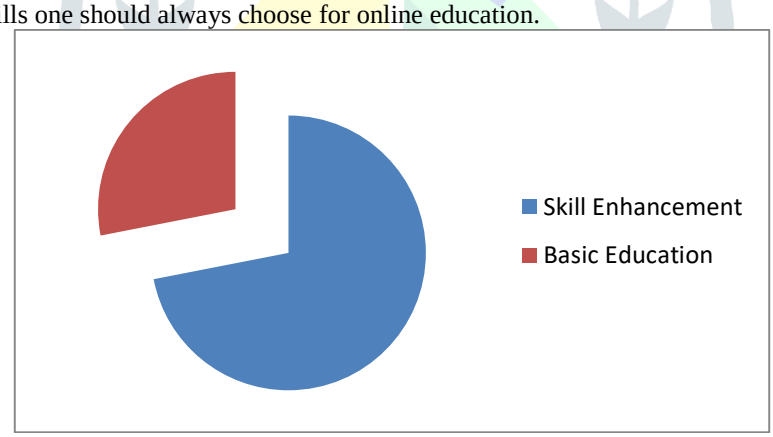
Drawback of online education during pandemic

There are a lot of drawback in online education during pandemic but majority of the drawback for students in online class is lack of concentration.



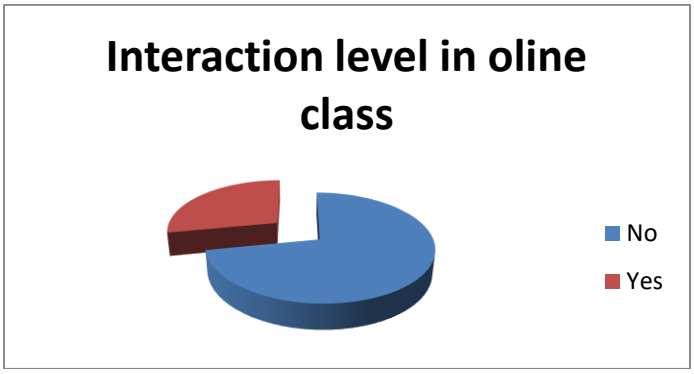
Preference of online education

We can clearly see from the pie chart that most of the students prefer online class for their skill enhancement because it saves their time and for learning any skills one should always choose for online education.



Interaction level in online classes

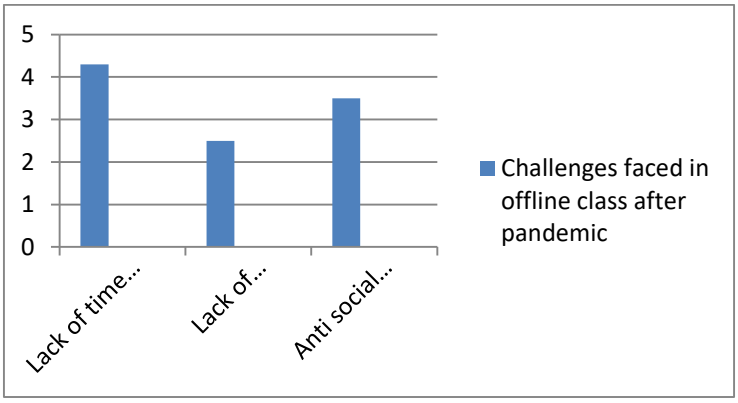
Interaction level in online class is lesser than offline class because in online class most of the students does not pay attention or they are not fully focused in their studies whereas in offline class in more interactive than online class.



Challenges faced in offline class after pandemic

There are a lot of challenges faced during offline class after the pandemic because after the implementation of online class students went in rest phase so after pandemic students faced a lot of challenges during the offline class.

Students became antisocial and were not able to manage time.



VI. CONCLUSION

The face-to-face learning process or offline method has been shifted by the online learning process due to the Covid-19 pandemic. In every country around the world, many students and teachers are forced to use online learning tools to teach their students. Hence, many teachers and students have changed their ways in the learning methods, and they also suggested that online learning is much better than offline learning during the pandemic Covid-19 situation. Online learning is enormously beneficial in these times of lockdown and limitations. The teaching-learning activities are done satisfactorily. However, the network problem becomes the main problem in online learning method.

In addition, based on the result before the outbreak of covid-19, we found that many students would like to prefer offline learning compared to online learning. The student prefers offline learning since they can focus, activate, and enjoy throughout the session by understanding the content better and do communication easily. Due to numerous issues, online learning was not successful. The quality of internet networking is very influential on the success of the online method. Students often do not understand the material taught by teachers and they can meet directly or face-to-face to solve the problem of misunderstanding.

Apart from this, many of the students in higher education agree that the online learning tools help to improve students' academic performance because it helps them do the task more efficiently and can always playback the video of the online learning tools that have been recorded to help to improve the academic performance. The online learning tools have helped the students in saving time while studying. However, when there is an offline learning class before covid-19 or an online class after covid-19, the student also has to spend almost the same time on the online class and offline class more than 12 hours per week.

On the other hand, the quality of the online educational process is based on several factors such as teacher's level of education using technology, teaching style, interaction with students, strategies that capture students' attention, encouraging student with teacher contacts, cooperation, rapid feedback, active learning, and time spent on tasks. The quality is dependent on various factors. This of the factor can help the student can get more improvement when through the online educational process and help them to get a good quality on the online education.

While all of the research included demonstrating that online learning is better than offline learning using higher education methodologies, neither of the included research revealed online learning to be less successful than offline learning strategies, regardless of statistical approaches used. We need to know that online learning is a valid strategy for higher education instruction and has its advantages for enhancing the education of students. In order to protect the success of online learning, we need to systematically examine the design principles of digital learning materials, learning objectives and preferences and characteristics of students.

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