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Impact of Online Learning on Academic Achievement in Higher Education

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Abstract : Due to the rapid growth of ICT, online education has become increasingly significant in higher education. This study investigates how professors feel about online education and how it impacts students' grades. The mixed-method approach included surveying 150 undergraduate and graduate students using structured questionnaires for quantitative data and interviewing 20 faculty members for qualitative data. Even while online platforms make learning more flexible and accessible, the findings show that they still have several issues, including a lack of training, technical barriers, less interaction, and apathy. Most students preferred online platforms to institutional institutions, emphasizing the role of technology in encouraging independence and academic performance. Faculty say effective online training takes substantial preparation, new ideas, and continual professional development. Despite its limitations, online learning may improve students' skill development and knowledge acquisition with the correct infrastructure and technique. The study suggests improving digital literacy, institutional platforms, and student-centered teaching to promote higher education online learning.

Keywords: Online Learning, Academic Performance, Higher Education, E-Learning Platforms, Digital Literacy, Faculty Perceptions

INTRODUCTION

Knowledge-based culture and an efficient workforce are a nation's foundation for growth. Educational systems must adapt to new technologies to remain competitive. As technology advances, educational requirements have increased [1]. Rising competitiveness, ICT advancements, and globalization are transforming the education business. Modern technology has made online schooling more important. It supports professional development, student-centered classrooms, and innovative, more accessible learning approaches. The educational system must use cutting-edge communication and information exchange to help today's students succeed. Institutions and students see various reasons why higher education e-learning is increasing. Higher education is becoming increasingly popular. Over 70% of new Canadian jobs will need a bachelor's degree. Online education is a potential alternative to regular classrooms since three schools lack capacity and building new ones is expensive. Many educational organizations, including colleges and universities, are quickly extending their online cyber education courses [2]. Universities must offer the best learning environment with

technology advances to meet students' changing needs. Most college courses include an online component to provide course materials or help students with tasks. Finally, whether they graduated on campus or online, prospective companies will want graduates with the skills to thrive in the workforce. Online degree programs are growing rapidly due to demand. Online education is popular with students because of its ease in today's busy world.

Online education in India

India sticks to its tried-and-true educational paradigm because it works. However, schooling needs are changing rapidly, making a uniform curriculum necessary. India's educational system needs major improvements. IT and its services now revolve around India. Non-technological ways to educate India's enormous young population are few. This makes online learning crucial. Though slower to adopt than in other countries, internet education is growing in India. Higher education professors and students must learn digital literacy to utilize ICT for personal and professional advantage. Rural India has a teacher shortage, and online education may help. Online learning may solve these challenges via virtual classes, mentoring, and live video streaming. Many feel online learning is better than classroom training due to its efficiency and order. Digital evaluations make class progress evaluation easier, especially in big classes [3]. More people are studying online, improving India's literacy rate.

- In India, there are internet-only enterprises and offline companies with an online presence.
- This combination of conventional classrooms with e-learning platforms should aid rural India's e-learning novices.
- The use of online education as an alternative to traditional college courses is still in its infancy in higher education.
- Online MBA is the most popular course [4].
- The online education market is worth 33 USD million, accounting for 13% of the entire market.
- Strong government backing and a large homeschooling population will boost online education expansion. KPMG India 2017 research and analysis

- India's internet penetration increased from 27% in 2015 to 34.8% in 2016, despite a 1.2% population growth.
- Interestingly, 13.5% of internet users worldwide reside in India.
- According to reports, the nation ranks second in size with 462 million Internet users, after China. Statistics (2017)

OBJECTIVES

1. To investigate faculty opinions and issues about the efficacy of online instruction;
2. To investigate how online learning affects students' academic achievement in higher education.

RESEARCH METHODOLOGY

We wish to study how online education influences students' grades and how professors feel about their online teaching. This is achieved by mixed-method research using quantitative and qualitative methods [5]. Online learners' opinions will be quantified in areas including information absorption, skill development, and platform use. Qualitative research will examine professors' perceptions on online teaching's pros and cons. Descriptive research designs may better understand and analyze online learning effectiveness aspects. This strategy helps explain how internet use behavioral intentions affect college students' academic performance.

Sampling

This study will include Balrampur, Uttar Pradesh, public and private school students. Sample includes undergraduate and graduate students who use the internet [6]. Because there is no complete sample frame, non-random convenience sampling will be employed. This ensures that respondents may simply access the survey, ideal for exploratory research. The organized questionnaire will be given to 150 randomly selected pupils. Questionnaire readability, face validity, and completion time were evaluated while establishing sample size. Beyond the student poll, twenty professors from selected institutions will engage in structured interviews to better understand their opinions on online teaching, its challenges, and strategies to enhance it. The survey will employ closed-ended questions to measure students' views on classroom

technology, online education, and learning satisfaction. Interviewees' qualitative responses will help explain higher education online learning's pedagogical and contextual features [7].

DATA ANALYSIS

1- Merits and Demerits of Online learning

It has been shown that engagement in online learning has an impact on the academic achievement of students (Figures 1 and 2). The majority of students were in agreement that there are a number of disadvantages associated with online learning. These disadvantages include a lack of self-discipline, restricted chances for extracurricular activities, low levels of student-teacher interaction, technical challenges, challenging home settings, and less opportunities for students to participate in extracurricular activities. On the other hand, some students may benefit from online learning due to the many benefits it offers, such as the ability to study at your own pace, access to course materials, the ability to record classes, and the freedom to schedule classes.

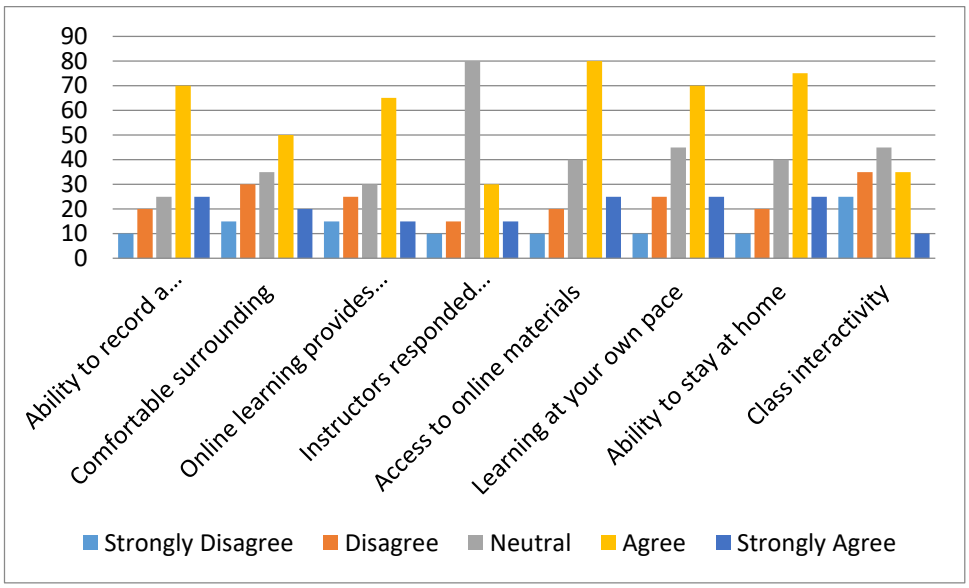


Figure 1. Merits of Online Learning

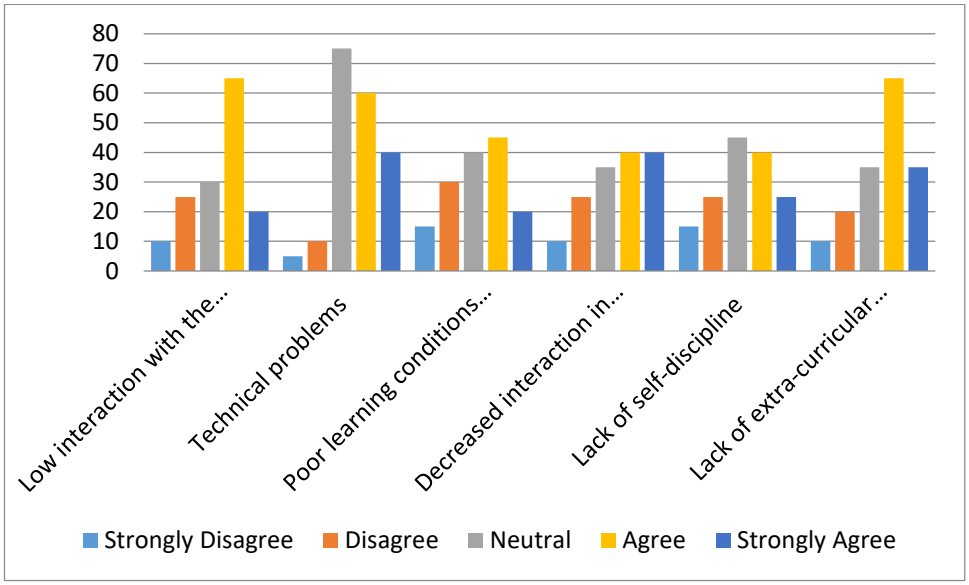


Figure 2. Demerits of Online Learning

2. The Efficiency of Online Education in Achieving Learning Goals

This section examined the extent to which students were able to accomplish their educational objectives via the use of online courses. A significant number of students believe that attending lessons online has enabled them to acquire more knowledge and remember more of what they have learned [8]. The students, on the other hand, were in agreement that their social skills and activity levels had decreased as a result of their participation in online training. They had a sense of disconnection from the social community and miss the opportunities for active involvement and social interaction that they enjoyed in conventional classroom settings.

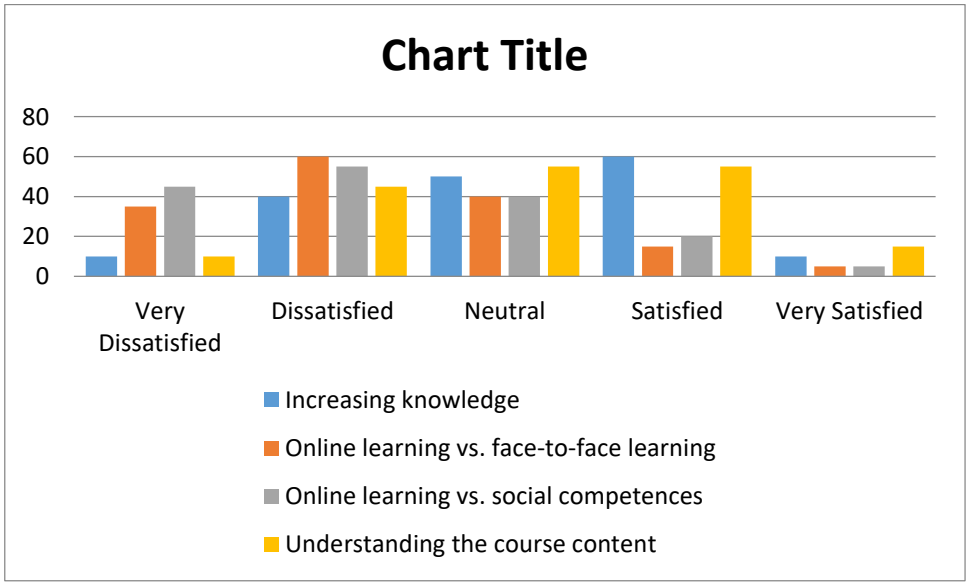


Figure 3. The Efficiency of Online Education in Reaching Learning Goals

3. Modes of Instruction for Online Learning

According to the findings, the following are the sorts of activities that were most often used in online classes: textual material, PowerPoint presentations, analytical exercises, problem solving, and group cooperation on research projects [9]. On the other hand, activities such as debate, discussion, dispute resolution, and management were seldom incorporated in online classrooms.

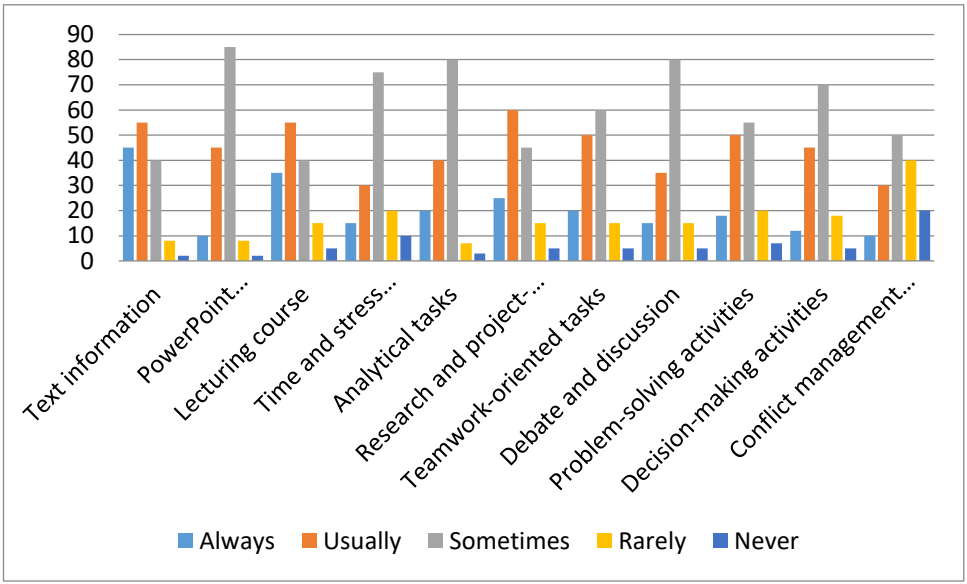


Figure 4. Fundamental Modes of Instruction for Online Learning

4. Learning Preferences of Students

Students ranked the following learning options as being among the most important and successful: activities connected to time management and stress management, conflict management, teamwork, interaction and public speaking, and decision-making. The development of skills that are relevant to the 21st century offers significant benefits to students in terms of both their academic performance and their preparation to join the job.

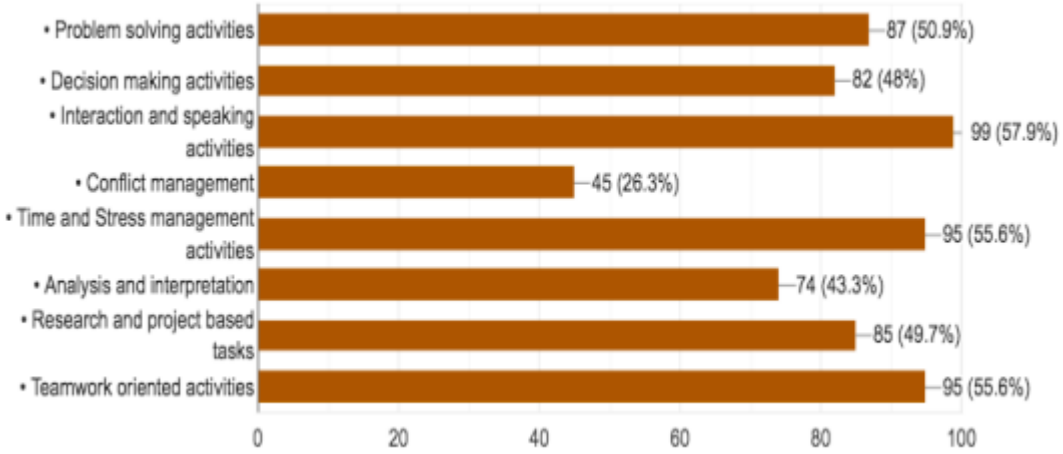
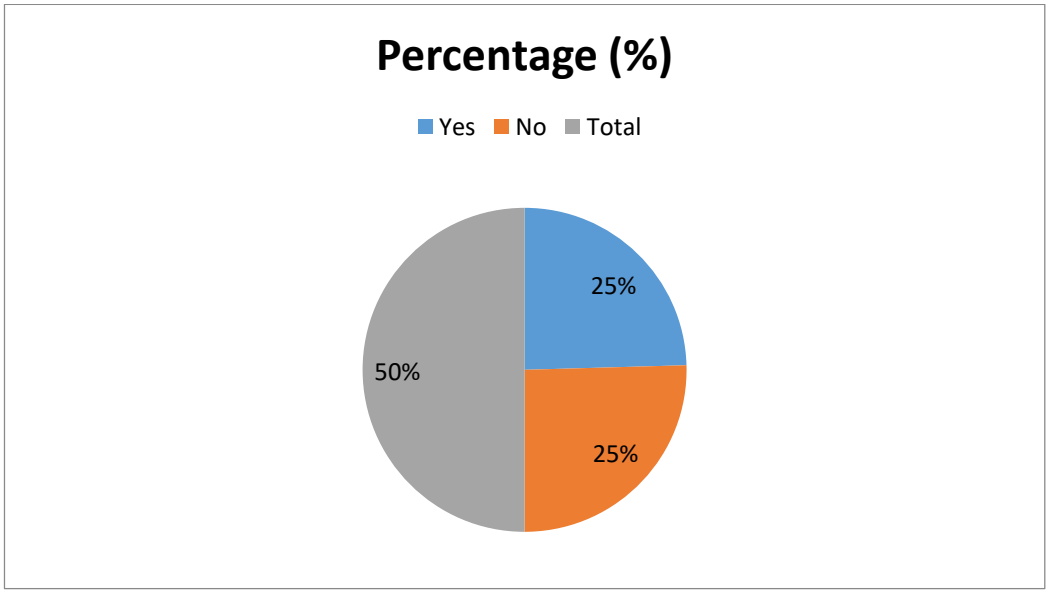


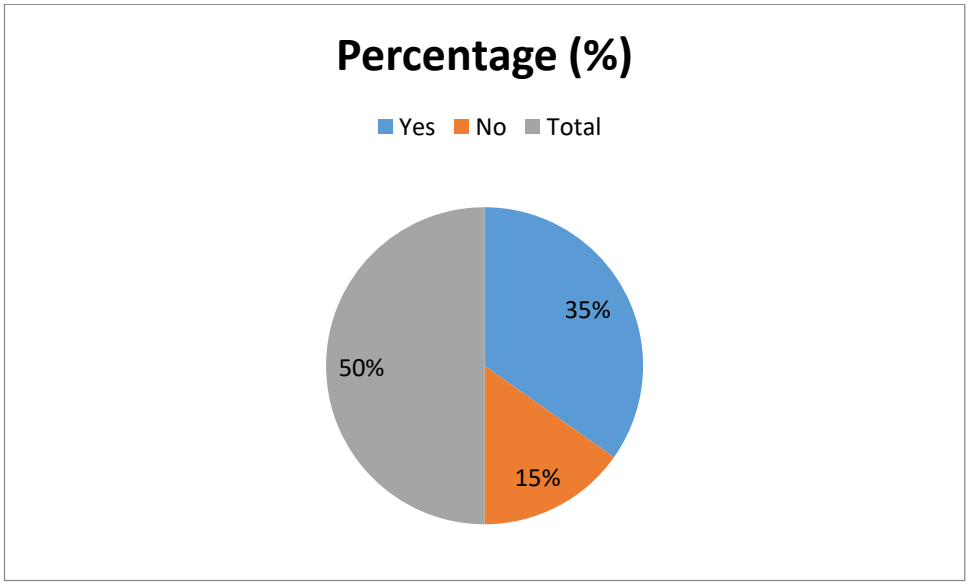
Figure 5. Preferences for Learning

5. People's Views and Experiences with Online Learning Environments

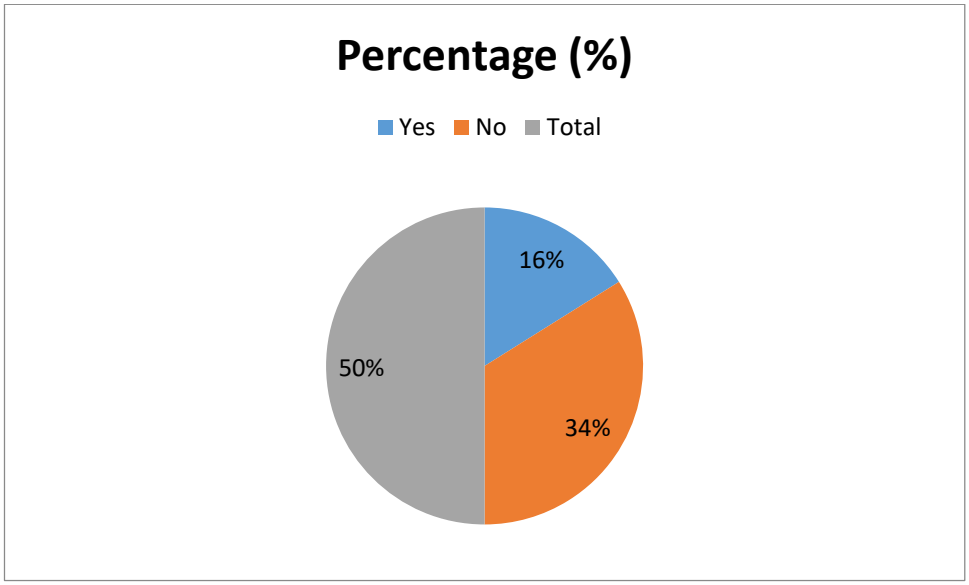
Students' views on technology and online platforms in online education were disclosed. Students embraced the institution's platform usage without criticism [10]. Furthermore, 69% of students would have chosen alternative online platforms better suited to their educational demands. Many students are uncomfortable with educational platforms since they did not attend adequate training classes. Overall, technology has improved students' academic achievement and independence.



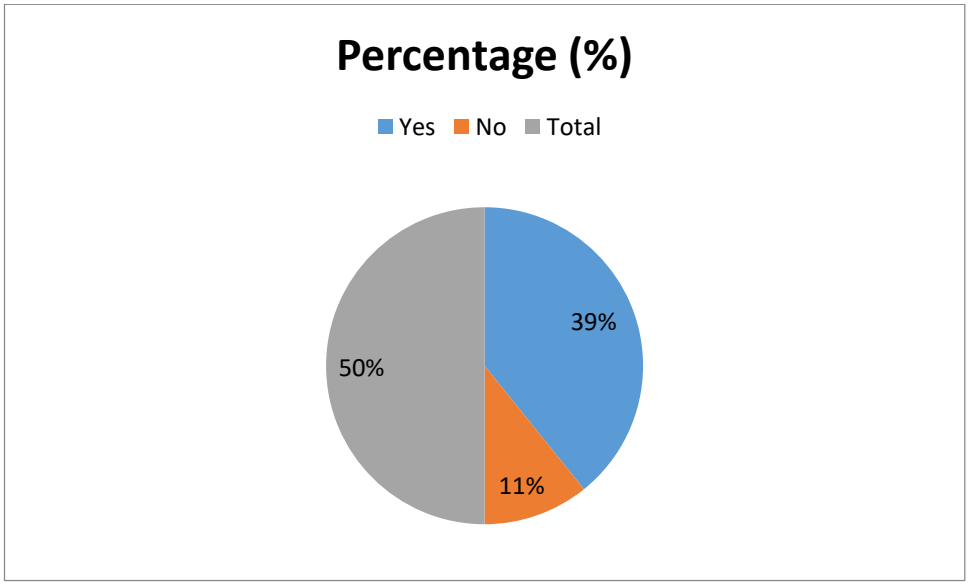
(A) I Am Satisfied Using Our Institute Platform



(B) I Wish To Use Other Platforms That Are More Useful For My Learning Experience

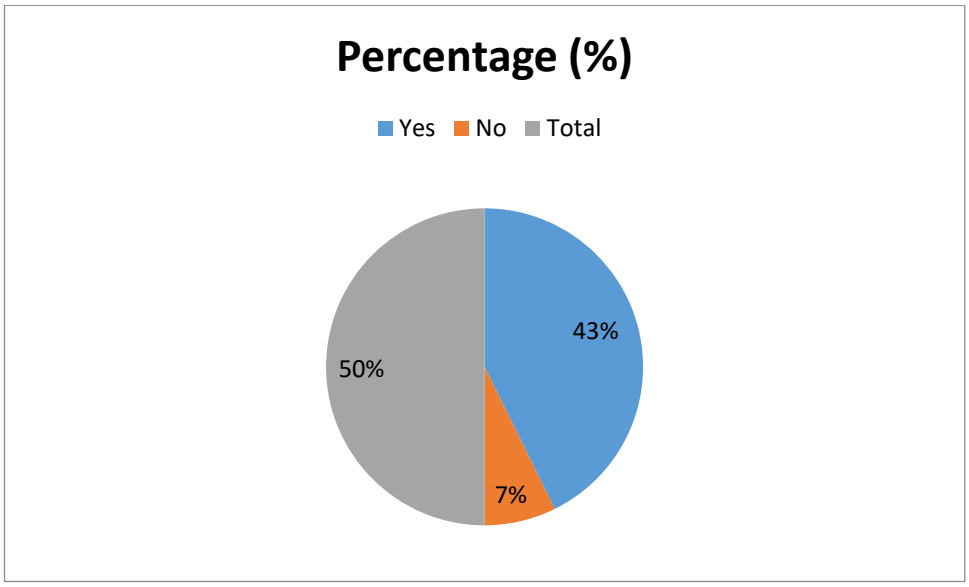


(C) I Had Training Courses Before Using A Platform

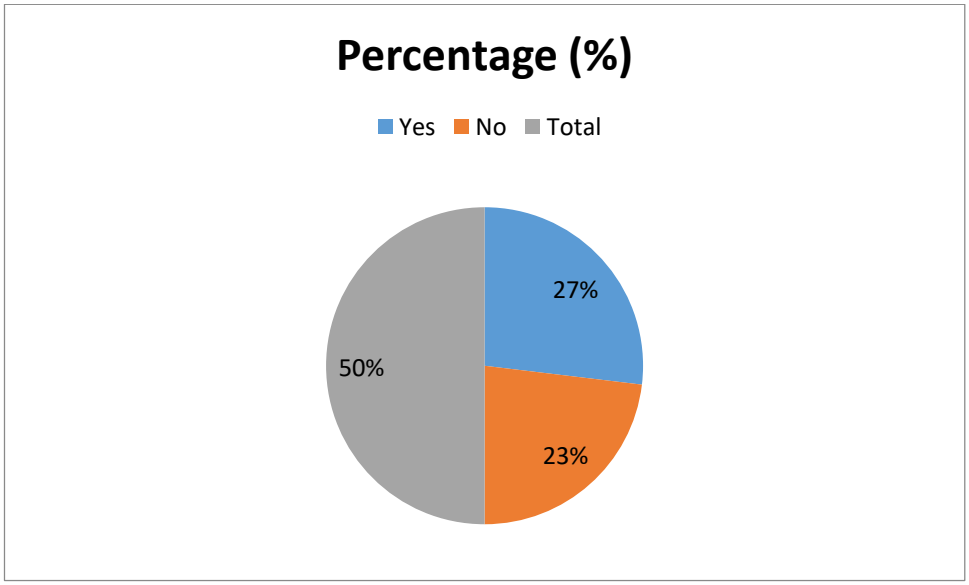


(D) I Had Training Courses Before Using A Platform

Figure 6. Views on E-learning Platforms



(E) Using Technology Helps Me Become An Autonomous Learner



(F) My Academic Performance Has Improved Using Online Platforms

Figure 7. Opinions on Online Learning Environments

Interviews: Views and Perceptions

To answer the second research question, which is to "explore the teachers' experience of online learning context and to offer some solutions and recommendations to improve the effectiveness of online teaching practices," we analyzed the responses of the interviewees by categorizing them into themes [11]. This allowed us to answer the question. The following is a list of the four primary points that are discussed in the paper: first, the prior teaching experience of the instructors; second, the utilization of the platform; third, teaching techniques; fourth, target-oriented activities in an online setting; and finally, a list of recommendations and proposals for improving the quality of education.

1. Experience in Online Instruction

Educators, who typically thought that online education was more challenging than conventional classroom settings, face a distinct set of obstacles when they are working with virtual classrooms. When asked, the majority of educators felt that becoming an online educator involves a significant amount of time spent studying, preparing, and practicing. Despite the fact that many online teachers said that they had achieved their course objectives, a significant number of students demonstrated very low levels of involvement and motivation overall. "Generally, all the course objectives were achieved but low interactivity is highly dominant in the online teaching-learning context," according to a number of the teachers. All

of the instructors were in agreement that in order to make online learning more effective, both the staff educators and the students needed to take part in professional development programs, seminars, and training [12]. In response to a question concerning the challenges associated with teaching in a mixed or online environment, everyone of the teachers acknowledged that further training in information technology and e-learning is required.

2- The Impact of Online Learning on Students

The vast majority of educators surveyed felt that their pupils did not benefit from participating in online courses. Due to the lack of interaction and feedback, the majority of pupils were dissatisfied. Unfortunately, a lot of factors contributed to the unfavorable impact:

- Limited internet connection;
- Difficulty using the platform;
- Difficult internal and external circumstances
- Absence of digital tools;
- Lack of zeal and drive;
- Problems with adaptation

In spite of this, there were educators who believed that schools that used hybrid or blended learning had a positive impact [13]. Instructors reported high levels of student satisfaction and effective class participation. Many students also reported a gain in independence and autonomy as a consequence of the increased use of technology in class and the completion of required online research and assignments. Furthermore, instructors noted that students were able to successfully participate in class.

3. The Platforms' Usefulness

There was complete consensus among the professors who were questioned on the fact that the synchronous mode of teaching supports and enables contact between students and instructors, as well as actively encourages students to raise questions in real time. Additionally, asynchronous learning is a successful technique because it provides students with increased control over their own learning and makes them more involved in their own learning environment by providing possibilities for peer collaboration, feedback, and self-reflection.

Assignments that require students to engage in analytical and reflective thinking are something that instructors feel should be given to students so that they may develop, synthesize, explain, and apply what they have learned in the classroom.

4. Target Skills and Efficient Teaching Methods

The vast majority of teachers have not had sufficient professional trainings and tutorials prior to joining the realm of online teaching activities. Educators make an effort to get acquainted with the platforms and make efficient use of them in their presentations and courses. There was a consensus among a number of instructors that the first professional trainings did not fully address the technical components [14]. In addition, when asked about approaches and activities that may potentially perform well in an online environment, the majority of instructors were unable to produce responses that were considered cohesive. A number of instructors demonstrated a lack of conviction and assurance in their position by use phrases such as "probably" and "maybe" when explaining the topic at hand. Academic concepts and teaching in the form of lectures have been suggested by a few educators as having the potential to function well in an online setting. A number of individuals are of the opinion that the use of asynchronous assignments, video sharing, and games may result in students being more self-sufficient and engaged. According to educators, there are considerable variations between in-person training and online instruction. As a consequence of these changes, the skill sets and competency levels of students should be updated properly. The use of activities such as group projects, communication, and content analysis, as stated by instructors, has the potential to enhance the academic performance of pupils.

5. Enhancing the Effectiveness of Online Learning

There have been a number of educators who have expressed their thoughts on how to raise the bar for classroom teaching and the accomplishment of individual students [15]. The majority of academics have proposed the following things in order to improve the effectiveness of online teaching and learning activities:

- Ensuring that a dependable internet connection and appropriate information technology equipment are made available.
- Motivating pupils to participate in research and learning activities that are centered on projects.

- Organizing continuing trainings and seminars for education professionals and students to learn how to use various platforms.
- Making PowerPoint presentations for students to use in reviewing the topics covered in the course.
- Integrating cutting-edge technologies and instructional strategies into online learning programmes on a regular basis.

FINDINGS

According to the findings of the research, participating in online education may have both positive and negative impacts on the academic performance and overall happiness of college students and professors.

1. The students noted that online learning offered a multitude of benefits, such as the opportunity to study at their own pace, access digital materials, and see recorded lectures. On the other side, the majority of individuals highlighted concerns, such as a lack of communication between instructors and students, challenges with technology, a lack of discipline, and a limited number of opportunities for extracurricular activities.

1. The majority of students said that their knowledge acquisition and understanding of the information covered in the course improved as a consequence of their participation in online learning. It had a negative influence on their social skills, making them feel passive and lowering their engagement, in contrast to in-person training, which had a positive impact on their social abilities.

2. Methods of teaching that were used the most often included those that were based on text, PowerPoint presentations, problem-solving assignments, analytical exercises, and group projects. As a result of a lack of emphasis on debates, discussions, and exercises in conflict management, the number of possibilities for interactive learning opportunities was reduced.

3. The students expressed a high preference for activities that placed an emphasis on the significance of time management, teamwork, decision-making, and interpersonal skills. They considered these to be essential characteristics for achieving success in school and finding work in the future.

4. When it came to the platforms offered by the university, the students did not have a preference; nevertheless, 69% of them preferred external platforms that they perceived to be more user-friendly. Due to the fact that many of them had not had any prior training, they had less confidence in their ability to utilize the instruments provided by the institution. The students did, however, concur that the use of technology increased their level of autonomy and assisted them in doing better in the classroom.

5. The faculty members who were responsible for online education reported having challenges with student motivation and low levels of involvement. Additionally, they noted that online instruction needed more preparation and innovation on their side. In order to achieve better outcomes, they emphasized the need of professional development, the enhancement of infrastructure, and the incorporation of activities that were project-based and also interactive.

In spite of the fact that online learning is easy and easily available, the success of this mode of education is heavily reliant on a number of elements, including the digital literacy of students, the preparedness of instructors, the support of institutions, and the use of instructional strategies that are student-centered and interactive.

CONCLUSION

According to the research, online learning has brought about several advancements in the field of higher education. However, it has issues with infrastructure, digital literacy, and engagement, despite the fact that it is more accessible, adaptable, and gives students more opportunity to study on their own. In spite of the fact that there is universal consensus that technology may make it easier for students to acquire knowledge and engage in self-directed learning, the quantitative findings indicate that a significant number of students continue to face obstacles such as insufficient training, technical issues, and dissatisfaction with instructional platforms provided by institutions. This assertion is supported by qualitative observations made by faculty members, which demonstrate that online education needs meticulous preparation, continuous professional development, and innovative tactics in order to maintain student engagement and achieve the intended results. The findings of the study, taken as a whole, emphasize the significance of making continuous investments in digital infrastructure, training programs, and instructional methodologies that integrate technology with student-centered, active learning practices. The use of online learning has the potential to

improve students' academic performance and better prepare them for the challenges that come with living in a digital world.

References

1. Darius, P.S.H., Gundabattini, E. & Solomon, D.G. A Survey on the Effectiveness of Online Teaching–Learning Methods for University and College Students. J. Inst. Eng. India Ser. B 102, 1325–1334 (2021). https://doi.org/10.1007/s40031-021-00581-x

2. Soujata Rughoobur-Seetah (2019) Factors affecting students' choices of tertiary institutions in small island developing economies, Quality in Higher Education, 25:2, 117-132, DOI: 10.1080/13538322.2019.1635303

3. Bhadauria, R. (2016), E-Learning – A boon for Indian Higher Education System, International Journal of Engineering Technology, Management and Applied Sciences Volume 4, Issue 2, ISSN 2349-4476

4. Artino, A.R. and Stephens, J.M (2009). Academic Motivation and Self Regulation: A Comparative Analysis of Undergraduate and Graduate Students Learning Online. Internet and Higher Education,12. Science Direct Journal. Volume 12, Issues 3–4, December 2009

5. Amitii, Flora. Synchronous and Asynchronous E-learning. European Journal of Open Education and E-learning Studies. ISSN 2501-9120. Volume 5-Issue 2

6. Anderson, T., Garrison, R., Archer, W., & Rourke, L. (N.d.). Critical thinking in a text based environment: Computer conferencing in higher education. Retrieved October 21, 2003, from the University of Alberta Academic Technologies for Learning Web site: http://www.atl.ualberta.ca/cmc

7. Asabere, N.Y., & Enguah, S.E. (2012). Use of Information & Communication Technology (ICT) in Tertiary Education in Ghana: A Case Study of Electronic Learning (E-Learning).

8. Bertea, P. (2009). Measuring Students' Attitude towards Online learning. A Case Study. A paper presented in the 5th International Scientific conference on online learning and software of Education, Bucharest.

9. Carroll, N., & Conboy, K. (2020). Normalising the "new normal": Changing techdriven work practices under pandemic time pressure. International Journal of Information Management, 55, Article 102186. https://doi.org/10.1016/j.ijinfomgt.2020.102186

10. Coman, C., Tiru, L.G., Mesesan-Schmitz, L., Stanciu, C., & Bularca, M.C. (2020). Online Teaching and Learning in Higher Education during the Coronavirus Pandemic: Students' Perspective. Sustainability, 12, 10367. https://doi.org/10.3390/su122410367

11. Garrison, D. R., Anderson, T., & Archer, W. (2001). Critical thinking, cognitive presence, and computer conferencing in distance education. American Journal of Distance Education, 15(1), 7−23.

12. Raymond, E., Atsumbe, B. M., Okwori, R. O., & Jebba, M. A. (2016). Comparative Effects of the Synchronous and the Asynchronous Instructional Approaches Concerning the Students' Achievements and Interests in Electrical Engineering at the Niger State College of Education. International journal of engineering Pedagogy, 6(3), 4-9. doi: https://onlinejournals.org/index.php/ijep/article/view/5302

13. Perveen, A. (2016). Synchronous and Asynchronous E-Language Learning: A Case Study of Virtual University of Pakistan. Open Praxis, vol. 8 issue 1, January– March 2016, pp. 22 (ISSN 2304-070X)

14. Radloff, L. (1997) The CES-D Scale: A Self-Report Depression Scale for Research in the General Population. Applied Psychological Measurement, 1, 386-401.

15. Raymond, E., Atsumbe, B., Okwori, R., & Jebba, A.M. (2016). Comparative Effects of the Synchronous and the Asynchronous Instructional Approaches Concerning the Students' Achievements and Interests in Electrical Engineering at the Niger State College of Education. Int. J. Eng. Pedagog., 6, 4-9.