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A STUDY ON IMPACT OF MODERN TECHNOLOGY IN EDUCATION

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ABSTRACT :

These days, people's lives all throughout the world are significantly impacted by the changes brought about by modern technologies. New and developing technologies have supplanted the conventional teaching and learning processes in the educational system. Every aspect of education, including curricula, instructional strategies, classroom instruction, etc., is being significantly impacted by modern technology. Education is now a lifelong process due to greater access to Information Technology (IT) and rapid communication in homes, workplaces, and educational institutions. Opportunities for knowledge exchange across national boundaries are facilitated by contemporary technology. These can aid in the acquisition of current knowledge and information by educators and students. Proper information is required for both teaching and learning to be effective. A collection of technologies known as information technology can provide the appropriate information to the right people at the right time. This essay emphasises the value of contemporary technology for classroom instruction and the educational field.

Keywords: Information Technology, Teaching-learning process, Communication, Internet, Computer.

Introduction:

In the contemporary world, technology plays a vital role in our daily lives and is regarded as the cornerstone of economic growth. An economy lacking technological advancement faces significant challenges in today's context, as technology simplifies tasks and reduces time consumption. Its profound influence extends across various domains, including education.

Recent insights into the preferences and learning patterns of modern students underscore the positive impact of technology on education. When students utilize modern technological tools and equipment, their engagement and interactivity in the learning process increase substantially. Technology makes education more dynamic and captivating, fostering effective knowledge transfer. Essentially, technology accelerates cognitive processes, enhancing learning experiences, whether in schools, universities, or colleges.

The role of technology in education is multifaceted. It serves as an integral part of the curriculum, acts as a delivery system for instructional content, aids in teaching methods, and enhances the overall learning process. Technology has transformed education from a passive and reactive model to an interactive and proactive one. It is indispensable in both corporate training and academic settings.

In corporate settings, education and training help employees adapt to new practices and approaches. In the academic realm, education aims to ignite curiosity and critical thinking among students. In both contexts, technology proves invaluable by facilitating a deeper understanding of concepts and improving retention rates.

Objective of the study

- To Study the importance of digital technology in education.
- To provide an overview of the relevance of digital classrooms in education.
- To highlight the function of digital technology applications in education.
- To identifying the major issues of digital technology in education.

Literature Review

The transformation of education through modern technology has been a dynamic and multifaceted journey over the past two decades. Online education, as documented by Allen and Seaman (2013), has witnessed remarkable growth, offering students unprecedented accessibility and flexibility. Concurrently, the evolution of blended learning, explored by Staker and Horn (2012), has redefined pedagogy, enabling the customization of instruction for diverse learning styles, while the flipped classroom model, as advanced by Bergmann and Sams (2012), has empowered students to become active learners by leveraging technology to access content outside the classroom. The emergence of Massive Open Online Courses (MOOCs), as analyzed by

Jordan (2014), has democratized learning by providing free access to high-quality courses from prestigious institutions. Furthermore, adaptive learning platforms, as researched by Anderson et al. (2014), offer the promise of personalized instruction, catering to individual student needs and enhancing academic outcomes. Kay (2012) has underscored the significance of mobile learning, leveraging the ubiquity of smartphones and tablets to make educational resources accessible at learners' fingertips. The immersive potential of virtual reality (VR) and augmented reality (AR) technologies, as examined by Deterding et al. (2015), has revolutionized the learning experience, enabling students to interact with complex concepts in entirely new ways. Learning analytics, as discussed by Siemens and Gasevic (2012), leverages data to enhance decision-making and student support, while gamification, championed by Gee (2003) and Deterding et al. (2011), has made learning engaging and enjoyable through the incorporation of game elements. In tandem, social media platforms, as analyzed by Greenhow et al. (2009), have facilitated collaboration, communication, and knowledge sharing in educational settings. However, this technological revolution has not been without its challenges, as Selwyn (2011) aptly pointed out, including concerns related to the digital divide, data privacy, and the essential need for teacher training. Furthermore, the COVID-19 pandemic, as highlighted by Hodges et al. (2020), prompted an abrupt shift to online instruction, unveiling both challenges and opportunities. Looking to the future, the post-pandemic era is poised to usher in further innovation in education, with artificial intelligence, virtual and augmented reality, and hybrid learning models expected to take center stage. This literature review underscores the transformative impact of technology in education, emphasizing its potential and the imperatives to address challenges and ensure responsible technology integration. The dynamic nature of this field warrants continuous research to harness its full potential for the benefit of both educators and learners.

Research Methodology

Research methodology is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically. In it we study the various steps that are generally adopted by a researcher in studying his research problem along with the logic behind them. Research methodology is crucial in ensuring the validity, reliability, and credibility of research findings.

Research Design

Research design is a blueprint of a scientific study. It includes research methodologies, tools, and techniques to conduct the research. It helps to identify and address the problem that may rise during the process of research and analysis.

Sources of Data Collection

Data Source

The research was carried out with the help of primary as well as secondary data.

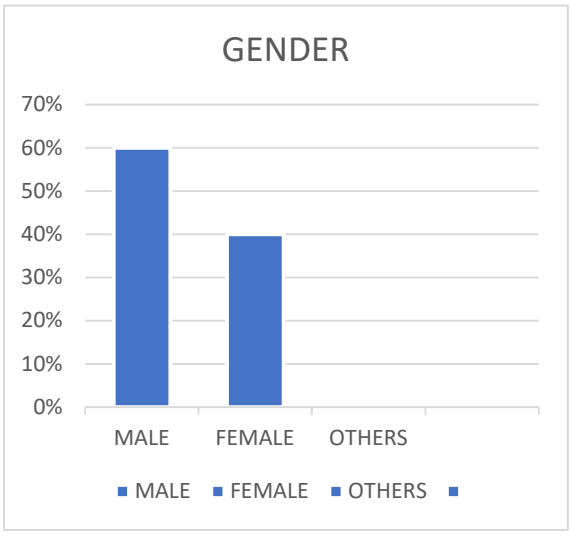
Primary Data

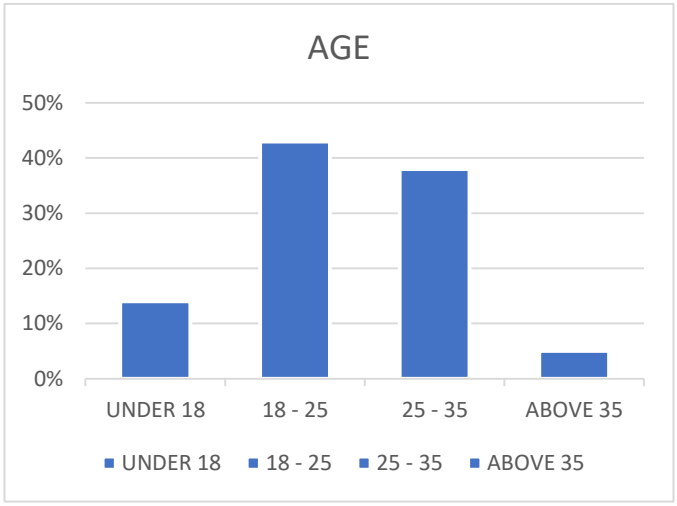
Primary data is a type of data that is collected by researchers directly from main sources through **interviews, surveys, experiments**, etc. Primary data are usually collected from the source—where the data originally originates from and are regarded as the best kind of data in research.

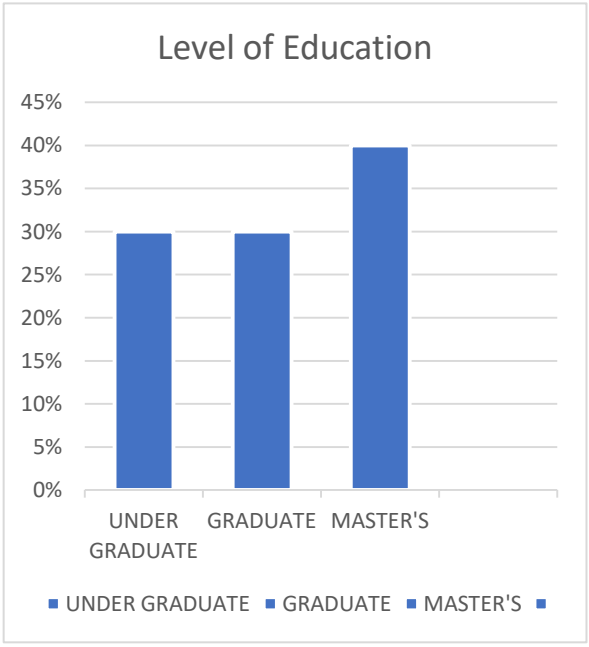
Secondary Data

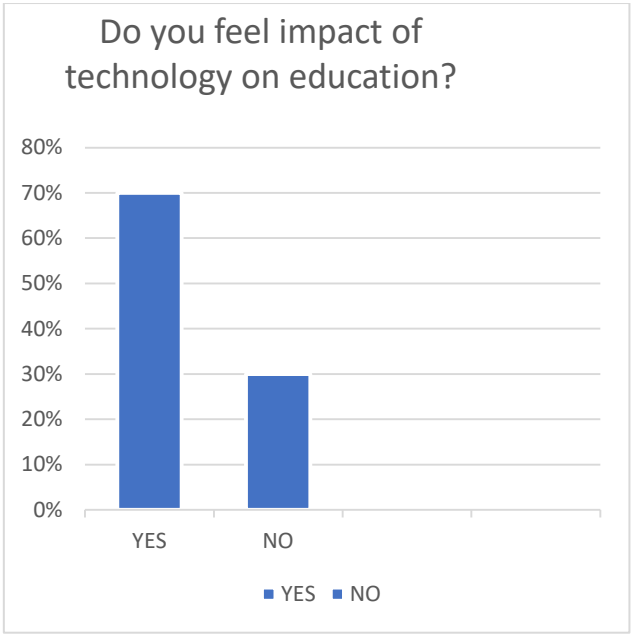
Secondary data are basically second-hand pieces of information. These are not gathered from the source as the primary data. Data collected by someone else earlier. **Surveys, observations, experiments, questionnaire, personal interview, etc.**

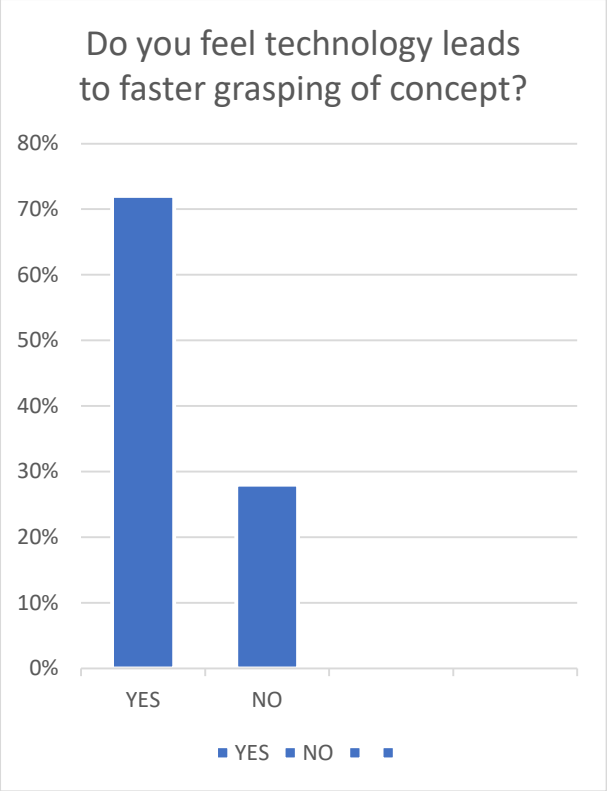
Data Analysis and Interpretation










Do you feel technology leads to faster grasping of concept?
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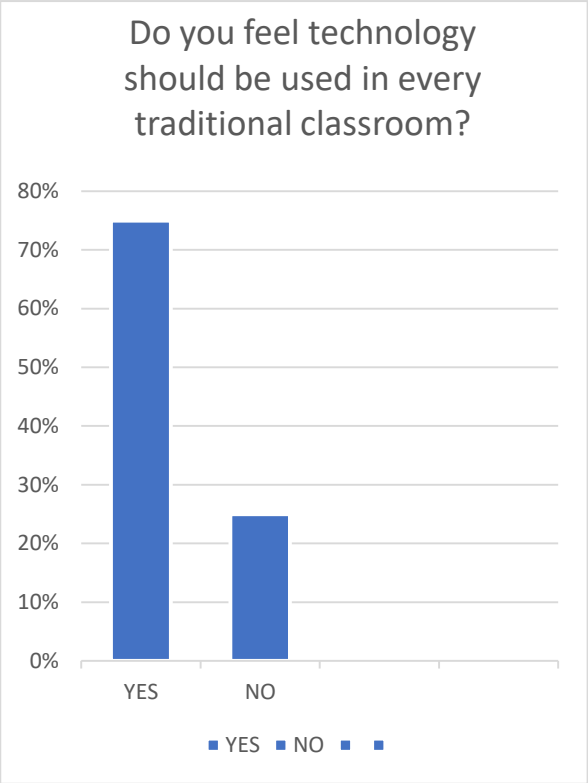
70%
60%
50%
40%
30%
20%
10%
0%
YES
NO
YES NO


Do you feel technology should be used in every traditional classroom?
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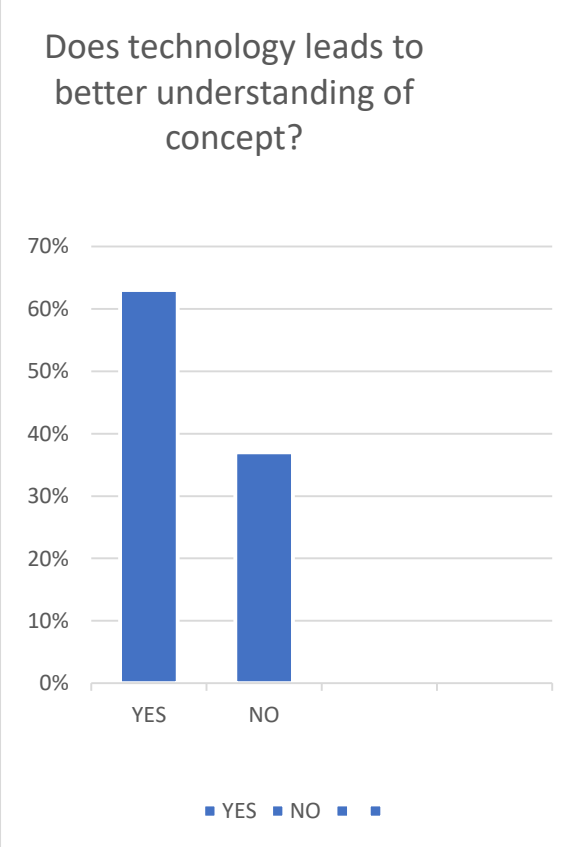
YES
NO
YES NO


Does technology leads to better understanding of concept?
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50%
40%
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20%
10%
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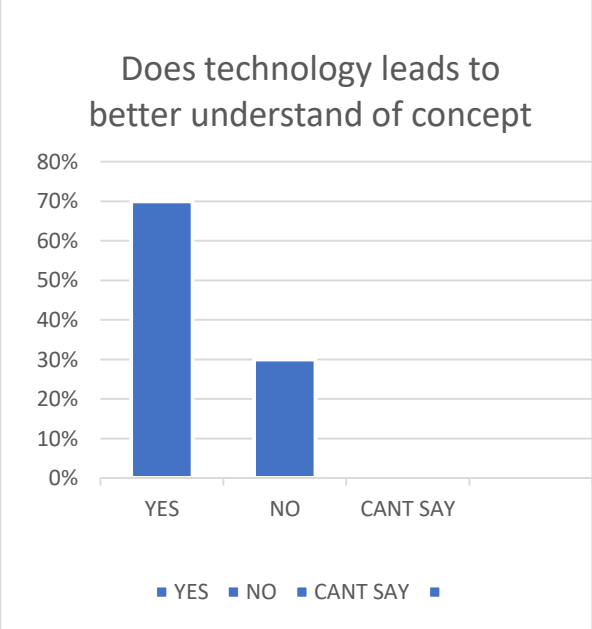
YES
NO
YES NO


Does technology leads to better understand of concept
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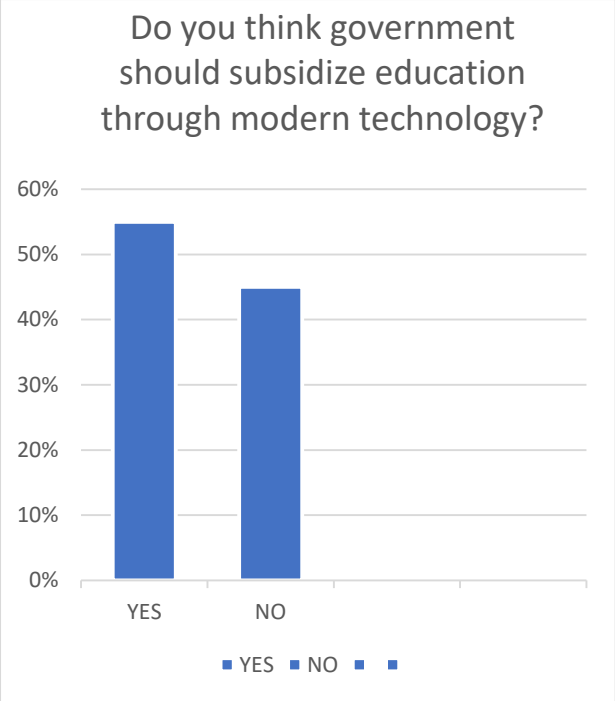

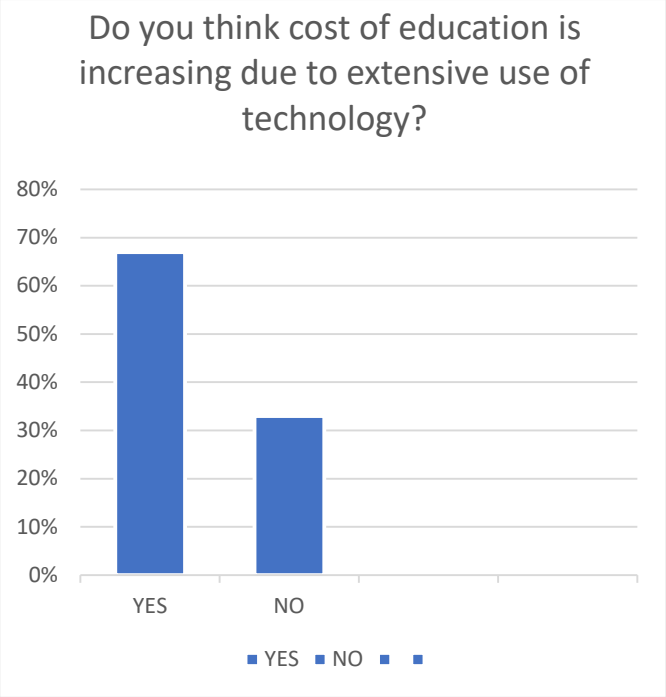

Findings

1. Out of 64 respondents, 60% are male and 40% are females.
2. Out of 64 respondents, 14% are under 18, 43% are of between 18-25, 38% are of age 25-35 and 5% are of age 35 above.
3. Out of 64 respondents, 30% are undergraduate, 30% are graduate and 40% are post graduate.
4. Out of 64 respondents, 70% feels impact of technology.
5. Out of 64 respondents, 72% feel technology leads to faster grasping of concept.
6. Out of 64 respondents, 63% thinks technology leads to better understanding of concept.
7. Out of 64 respondents, 75% feel technology should be used in every traditional classroom.
8. Out of 64 respondents, 70% thinks technology leads to better understand of concept.
9. Out of 64 respondents, 55% you think government should subsidize education through modern technology.
10. Out of 64 respondents, 67% thinks cost of education is increasing due to extensive use of technology.

Recommendation

Out of the findings and conclusions drawn out from this study, the following recommendations have been formulated: Ensure that schools offer computer facilities accessible to all students across different grade levels to provide equal opportunities for computer usage.

Maximize the utilization of available computer resources, particularly in public schools, by encouraging students to use them more frequently.

Provide younger students with increased opportunities to engage with technology through a variety of activities, recognizing their potential for self-sufficiency similar to older students.

Emphasize the importance of improving overall teaching effectiveness among educators, rather than solely relying on technology to enhance student learning.

Grant students in public schools more opportunities to utilize government-provided computer packages, addressing the limited access to computers outside of school.

Enable students to independently use technology to foster the development of higher-order thinking skills.

Offer advanced computer technology training for teachers to enhance their presentation skills, utilize spreadsheets for grade computation, and design activities that facilitate students' integration of computers into their projects and assignments.

Promote awareness and caution among both students and teachers regarding internet-related issues, especially since they are active on social networking platforms.

Conclusion

Our exploration into the importance of digital technology in education has revealed its significant impact on modern learning environments. Digital classrooms have emerged as a crucial component, revolutionizing the way students access information and engage with educational content. Through

various applications and tools, digital technology has facilitated interactive and personalized learning experiences, catering to diverse learning styles and preferences.

However, it is essential to acknowledge that along with its advantages, digital technology in education also presents its share of challenges. Issues such as the digital divide, privacy concerns, and the potential for distraction must be carefully addressed to ensure equitable access and a safe learning environment for all.

In summary, digital technology has become an integral part of the education landscape, offering immense potential to enhance teaching and learning. By harnessing its benefits and addressing its challenges, we can strive for a future where education is more accessible, engaging, and effective for learners of all backgrounds and abilities.

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