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A STUDY ON IMPACT OF DIGITAL LEARNING ON SCHOOL AND COLLEGE EDUCATION WITH REFERENCE TO MUMBAI REGION

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ABSTRACT
Usually, education is focused on sources such as schools, teachers and print media. The learners reached the information sources by enrolling with schools, teachers, and libraries. [1] Currently, technology is progressing with the speed of light and touching most of the characteristics of our daily life. The modern form of education is a departure space for digital learning to create a new modern era of education and transfer it advancing. Both teachers and students are profiting from digital learning have to offer. As the world changed to new technologies and new inventions are made to change our education system also. We move forward with this new technology of education system, this is very helpful now a day's for the teacher, student, as well as parents, also get benefitted with the new era of learning. As the demand of society, everyone has to change and grow in their respective fields. This 21st century is considered a digital era. Everyone wants to give the best to their children. Education is given the highest priority and this is very much needed to everyone now a day's intelligence is becoming the most valuable asset of an organization and society. Developments in digital equipment have opened up many opportunities for learning. Technology has made information accessible transmittable from anywhere, anytime on any device by anyone of them. Now education has reached most parts of the world and ICT has become an essential part of human life. This paper describes the process of generation, creation, and acquisition of knowledge through technology. The use of ICT to achieve and bring together explicit knowledge is emphasized. [2] The paper also refers to how digital learning helpful for the academic and also it also used to access resources and apply changes in the field of education. The main focus of e-learning methodologies is on both asynchronous and synchronous methodology.

Keywords: ICT, E-Learning, Internet, Smart Classroom

1. INTRODUCTION

In this constantly rising digital era, a growing number of students are deliberately but increasingly moving towards online digital courses in almost every field containing business, arts, engineering as well as programming languages and technical tools. Also frequently known as eLearning, digital classrooms are forthcoming rapidly in all streams around the world, and the learners are keenly filling up the seats. By digital learning a massively innovative technological medium but it also provides the learners with a great deal of flexibility, permitting them to study at any time from any place at their appropriate speed without worrying about timetables and plans. The students, for the first time, also have the authority to choose what they what to learn and what they don't. This benefit has made digital learning enormously popular, not only between engineering students but also students involved in many different fields. There are a few essentials which, when applied to digital learning classrooms, improve student commitment as well as their attention. These basic ideologies are relevant to all kinds of digital learning courses be its language skills, progression training skills or even soft skills, etc. For engineers, the digital learning platform is a dedication as it allows students to clench the most essential concepts sitting in the ease of their places. Digital learning can be defined as a learning method that is based on reclaiming information through technological devices. Students are able to get the proper learning from substitute and cooperative methods. Their core curriculum is web-based, which means that the process of learning is done through different electronic devices that help the students be more aware of what they are being taught as well as concentrate more on their education. [4] Digital learning can be defined as web-based learning which successfully makes use of the information technology to convey knowledge to the students. In additional disputes, it is also known as the Smart Teaching Technique and as such most of the schools and educational institutions have appreciatively adopted this method thereby conveying a massive change in the educational system. The teenagers are educated with the help of large LCD screens and projectors which is beyond the conventional methods of teaching. [4] It accelerates the learning process anywhere and anytime. The teacher now does not have to take the cautions of writing on the blackboard with white chalks and then erase it later. There is no hesitation that since the initiation of eLearning, the education system has become more concrete. Digital learning tied with classroom learning has helped students get an in-depth understanding and knowledge of engineering concepts.

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1.1 WHY DEVELOP E-LEARNING?

Emerging e-learning is more costly than formulating classroom materials and training the trainers, particularly if software or highly collaborative methods are used. Though, transport costs for e-learning are considerably lower than those for classroom facilities, instructor time, members travel and job time lost to attend classroom sessions.

Digital Education can deal with active instructional methods, such as operational with connected feedback, linking association activities with self-paced study, engraving learning paths based on learners' needs and using virtual reality and games. [7]

All students receive the same feature of education because there is no dependence on a specific instructor. Through digital learning, process education becomes easy and simple to understand. E-Learning platform attracts numerous learners due to no restriction of the place, time and subject.

1.2 DIGITAL LEARNING MAKES STUDENTS SMARTER

Learning tools and technology enable students to develop active self-directed learning skills. They are able to classify what they need to learn, find and use online assets, apply the information on the difficult at hand, and even estimate ensuing response. This increases their efficiency and throughput. In addition to appealing students, digital learning tools and technology polish critical rational skills, which are the basis for the development of logical reasoning. Educational tools by Young Digital Planet such as Bijou's teach youngsters how to work together and work successfully in groups. [4]

1.3 TRADITIONAL EDUCATION METHODS HAVE TO BE REPLACED

By facilitating youngsters think outside their typical learning ways, digital learning inspires creativeness and lets youngsters feel a sense of achievement that reassures auxiliary learning.

Digital learning tools and technology fill the breaches where classical classroom teaching falls behind. In fact, some of the effectiveness such tools bring are simply unmatchable by traditional learning techniques.

1.4 INCREASING STUDENTS' EMPLOYABILITY WITH DIGITAL LEARNING TOOLS AND TECHNOLOGY

Digital learning solutions based on problem-constructed learning highlight on learning methods that are fruitful, cooperative and calls the students' kindness to a real-world approach to learning. Digital learning tools and technology in basic, minor, and high schools fixes students for higher education and modern livelihoods by helping them obtain skills including problem-solving, awareness with emerging technologies, and self-motivation.

1.5 DIGITAL LEARNING TOOLS AND TECHNOLOGY IS SPEEDILY MUTUAL INFORMATION SHARING

Digital learning tools and technology enable educators to quickly share information with other instructors in real-time. The outburst of free and open content and tools has created an environment of sharing low-cost. By acceptance digital devices and connected learning, classrooms around the country and around the world can not only synchronize with one another to share understandings but also enhancement learning, experience, and communications skills.

2. RESEARCH METHODOLOGIES

Digital learning has completely changed the scene of education. There are so many ways that technological ideas can improve and give to a classroom that the choices are limitless. Inventive and attractive digital learning atmospheres are not only the new model to follow, but they're the wave of future learning as well. You can change your classroom using unique policies like these that focus on digital learning and interaction.

"Computer Aided E-learning Method is the key to success in e-learning courses."

There are 3 basic categories of online learning methods: [8]

2.1 ASYNCHRONOUS ONLINE COURSES:

Asynchronous Learning allows you to take online courses on your schedule. Instructor provides materials, lectures, tests and assignments that can be accessed at any time. Students may be given a time frame by which they are going to connect at least.

2.2 SYNCHRONOUS ONLINE COURSES

Synchronous learning is when sessions occur on set plans and time frames. Students and instructors are online at the same time in synchronous classes since lectures, consultations, and demonstrations take place at specific hours. All learners must be online at that strict time to join in the class.

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2.3 DIGITAL LEARNING METHODOLOGIES TOOLS

Core curriculum tools are widely used in high school and college education. Resources are designated and organized to aid class activities. Further tools, such as discussion forums and online quizzes, are integrated to support collaboration and evaluation. A typical commercial core curriculum tool includes three integrated parts: instructional tools, administration tools, and student tools. Instructional tools include course design and online quizzes with automated grading.

2.3.1 VIRTUAL CLASSROOMS

Virtual classrooms require both the trainer and the students to be connected to the learning platform at the same time.

2.3.2 VIDEO/AUDIO TAPE

This is another most collective method to create sample video to train the learners. It also supports to create one way of learning resources which help the learner know about the basics by seeing.

2.3.3 MOBILE LEARNING

The informal accessibility and affordability of mobile devices has created the space for mobile-aided learning or mobile learning. The abilities of the mobile device, including disk space, internet connectivity, and the screen size has to be taken into thoughtfulness.

2.3.4 SKYPE A SPEAKER INTO THE CLASSROOM

Skype is a social media tool in the classroom. Skype can be a wonderful opportunity to expand learning situations through voice, text and video sessions you can even have speakers contribute to classroom talks by interacting with them online through Skype.

2.3.5 SMART BOARD

Smart Technologies is a manufacturer of interactive solutions geared specifically towards educators including interactive whiteboards smart board's interactive projectors, short-throw projectors, document cameras, and interactive LED/LCD screens.

2.4 DIGITAL LEARNING APPROACHES

There are two general approaches to e-learning: self-paced and facilitated/instructor-led. [7]

2.4.1 SELF-PACED E-LEARNING

Students are able to learn at their own speed and to define individual learning paths based on their individual needs and interests.

2.4.2 INSTRUCTOR-LED AND FACILITATED E-LEARNING

The course is programmed and led by an instructor through an online learning platform. E-learning content for individual study can be integrated with instructor's lectures, individual assignments and combined activities among students. Learners and students can use communication tools such as e-mails, discussion forums, chats, surveys, whiteboards, and application sharing and audio and video conferencing to communicate and work together.

3. RELATED WORK

In this section we will discuss on pervious similar study on digitization with digital learning.

Saiful Islam and Nusrat Jahan conducted a survey on various students for understanding the digitalization effect on educational purpose. They have concluded that in future social media can be act as e-learning resource. [10]

Sunday Tunmibi, Ayooluwa Aregbesola, Pascal Adejobi and Olaniyo Ibrahim have studied the impact of e-learning on Primary and Secondary Schools. They showed that majority of their teachers agreed on e-learning will help their students to acquired more knowledge. [11]

Manoj Kumar discussed the use of smartphones in education. He also studied with the professional and technical study in India. [12]

3.1 BENEFITS OF DIGITAL LEARNING:

- Access quality of education from anywhere and anytime. There will be no restrictions on place and time.
- Get personalized education i.e. students can learn the concepts based on their preference and proficiency level.
- Students can get support and guidance from varied teacher across globe.

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- It reduces paper work and makes exam easier. It helps institute to establish eco-friendly environment.
- It also saves time of educators or teachers to teach any concept. It helps them improve teaching-learning process and creates classroom environment more interesting.
- Digital learning plays very valuable role for students with learning disabilities.

4. DATA ANALYSIS

We have conducted online survey among students on the basis of Internet access for educational purpose. Here considered response from 47 students. In this section we discussed four issues related to survey and focused on effect of digital education on classroom education.

A. EFFECTIVENESS AND GENDER

In fig 4.1, although the traditional education system in our country is still preferable by many of the teachers, but students' thought on this is different. On our survey, we raised the question "Do you think this Digitization will affect your classroom learning?" the answer was varying with Happy and unhappy ratio. Around 76.6% students are agreeing with positive affect of digitization on classroom learning while 12.8% students are unhappy with this and 10.6% students uncertain on digitization.

In fig 4.2, on our survey it is found that only 36.2% female students are involved in this survey while as compare to female, male ratio is quite high. 63.8% male students have responded to the survey.

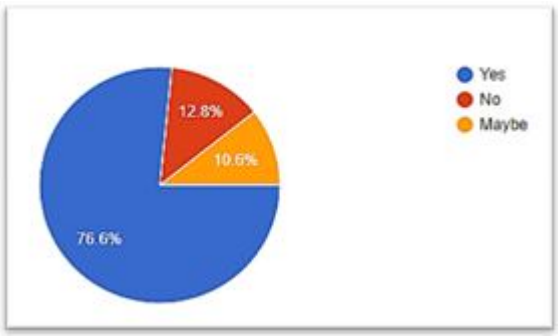

Fig 4.1 Effectiveness

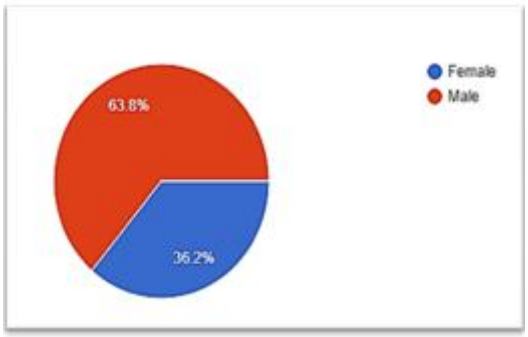

Fig 4.2 Gender

B. EDUCATION TIME

Our new generation students are so techno savvy, so we asked question in our survey that "How much time do you spend for Education per day using Internet?" Around 44.7% students spend time on Internet for their Educational purpose.

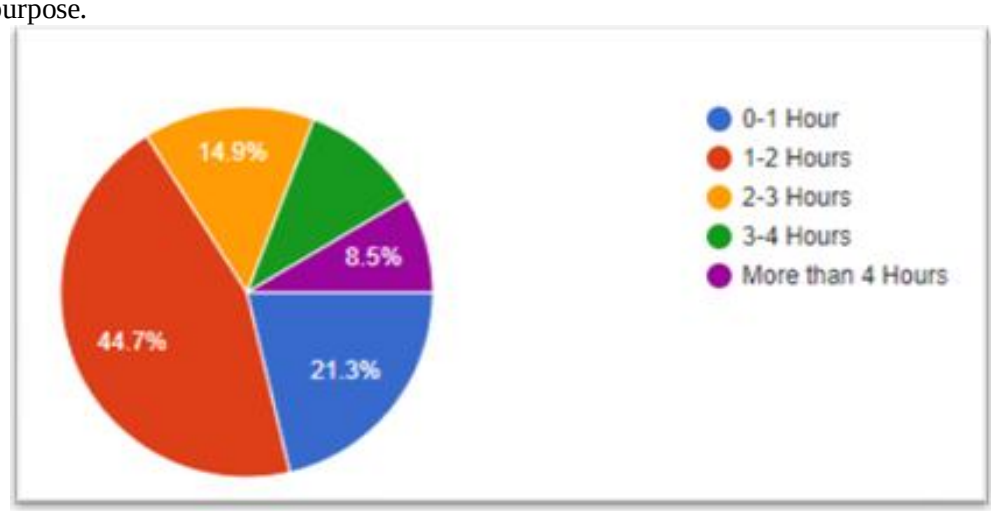

Fig 4.3 Education Time

C. HELPFUL WEBSITES & TOOLS

In this digital era, students have so many websites and tools to learn their classroom study. Based on our survey 97.9% students uses Google as their important search engine to search their doubts. In website, w3schools and tutorials point are frequently used by 31.9% students respectively.

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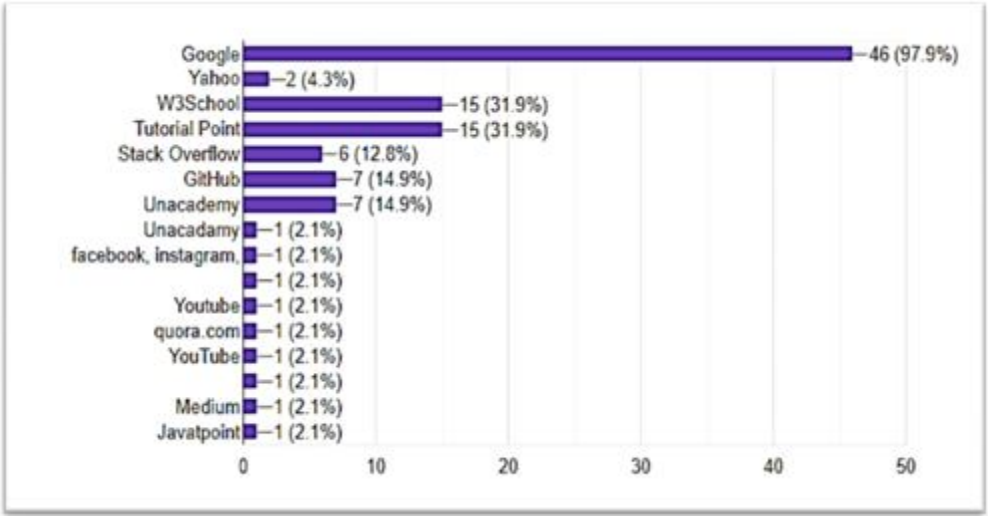

Fig 4.4: Helpful Websites & Tools

CONCLUSION

Today traditional learning styles have been changed into the digital education system. There are unlimited advantages of digital learning. It opens ups a new way of education.

E-learning is not just a change in technology. It is part of a reconceptualization of how we as classes spread knowledge, skills, and values to younger generations of workers and students.

This permits learners to economically gather information and instruction both by the synchronous and asynchronous methodology to professionally aspect the need to rapidly acquire up to date know-how within creative environments. E-learning provides content from end to end electronic information and communications technologies (ICTs). Digital Learning is open the door for all the age of learner they can learn from anywhere, anytime and on any kind of devices.

Digital learning follows synchronous and asynchronous learning methodology. In the future, it makes education for all easy, simplest and fully understandable for the entire educator, learners, and others.

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