Research Paper

Conceptual Study of Digital Education for Digital India

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Abstract

This paper is focuses on application of digital technology in educational field, which includes digital technology in teaching, learning and evaluation process.The objective of this study is to focus on conceptual information of digital education and later on it discusses on the importance and limitations involved in online and digital education and finally the study highlighted the core challenges of digital education in India. The study further focuses on macro level information regarding how digital technology plays an important role and act as bridge between sender and receiver in order to fulfill modern day approach. The study finally concluded that digital education should be complement to traditional mode of physical education then only the country can be able to reach the benefit of digital education.

Keywords

Digital technologies, cognitive, teaching, barriers, attitude, strategies

1. Introduction

"Technology will not replace great teachers but technology in the hands of the great teachers can be transformational"

Technology is one of the keywords of our world, yet it is also one of the most confused forms of elite and systematic knowledge. There is no denying the fact that technology has brought a revolution in many operational fields - be it gadgets or faster modes of communication or even the education sector. The outbreak of COVID-19 pandemic has resulted in tremendous change in the traditional mode of class room educational system, wherein the concept of online classes and usage of laptops has replaced black boards and text books. During the time of pandemic digital education was the sole source of learning for students in the country. Today, with the click of a button, students have immediate access to quality information available worldwide. They can gain practical and technical knowledge. Innovative audio-visual features can enhance their cognitive level. The study materials can be downloaded and saved for future reference. Teachers too can coordinate with students through electronic (e) classrooms and impart knowledge and share their ideas and resources and utilize the resources available on the internet for their various project work, research, etc.

2. Objectives

1. To understand the conceptual information of digital education
2. To study the importance of online and digital education
3. To understand the limitations of digital education
4. To understand the challenges of digital education

3. Importance of Digital Learning

A. Individualized Learning Experience: Conventional class room education system failed to capitalize interest of all students and not able to carry the momentum with the rest of other students in class. Digital learning methodology allows teachers to customize their teaching methodology and study materials by keeping in mind of student's psychology and ability of learning speed of individuals.

B. Students become Smarter: It gives enough freedom to students to explore what they need to know, it develop searching ability and utilize online resources, when we exposed them to digital learning tool that developsself-directed learning skills. It plays an important role to multiply their productivity, learning ability and magnify their efficiency

C. Unlimited Information: The world of internet is wide and having ocean of information. Earlier students would rely on limited edition of information, but now due to revolution took place in digital platform it breaks conventional barrier and allow students to discover. Lots of information available freely in the ocean of internet resources. Students have zero restrictions to explore the information and use this treasure of knowledge.

D. Smart Classrooms: Digital service provides innovative platform to teachers to teach concepts more creative way that helps students to understand the concepts innovative and fun. Traditional chalk and talk method is past now, modern day classrooms require smart board, projector, TV etc… which makes it easy to present concepts in picture or animation form that helps students to better understand, due to that students can pay more attention as they are extensively approachable to digital world.

E. Digitally Updated: In a fast growing world in terms of technology, resources and practices can easily outdated, as they boosting students to innovate new and update scientifically in terms of subject related. Now a days students are fascinating more towards electronics gadgets like phones, laptops etc.. So they must be technologically sound.

F. High Engagement Learning: Traditional education system has limited scope of engagement as it restricted only on textbooks, magazines, handwritten notes and instructor. Where as digital education platform provide wide range of choice to learn. They have ample

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number of tools like smart board, white board, browser, games, drama, activity based learning session motives active participation from students.

G. Ease of Sharing: Digital learning system breaks the barrier of handwritten notes making process, avoid carrying bag of books, stops depending on library to gather information, create an environment to attend class by sitting in home, can able to collect any information from anywhere is just a click away which saves lot of students time, efficiency and physical labor. It makes easy to preserve information in the form of soft copies so that one can access from anywhere in the world.

H. Accountability in Students: Digital education system brings accountability to students so that they can track their academic progression easily. Digital evaluation process saves lot of time, energy and efficiency simultaneously which provide early result, breaks unnecessary fiscal burden and brings more transparent in evaluation process. It enables students to analyze their performance and come up with required solution on their own. Digital education system gives freedom to study to think independently, develop positive attitude. One can no longer depend on spoon feeding provided by teachers in class and parents in home regarding any information.

4. Challenges while incorporating online education

1. Incorporating online education in the general education system isn't an easy task, with the new set of rules brings many challenges.
2. India is an agrarian country, 60% of population dependent on agriculture. Out of that 30% of population not aware about computer literacy and they don't even know how to start it. Minimum computer knowledge is needed to provide digital education
3. Electronic gadgets needed for digital education which are expensive. Lower class people like farmers, maids, scavenger, who belong under below poverty level, for them it is hard to purchase laptop or phones and put every month internet connection
4. It is a big challenge for teachers also. They might be good at class room offline mode teaching, it doesn't mean their Excellency would carry in digital learning also.
5. Subjects like science needs practical class, eventhough teacher taught through digital mode practical experience also important to gain better knowledge,practical training also important to grasp what they have learned.
6. India is still lagging behind digital resources due to that it is difficult to conduct an online examination and students shows resistance to change from traditional class room mode to digital mode
7. Because of poor network connection in remote and socio-economic backward areas, it is difficult to broadcast live session and streaming for the children's related to academics. India is still facing network connectivity issue in most part of the country it costs a lot

5. Limitations of Digital Learning

1. Socioeconomic divide: India is a land of diversity having varieties of culture, ethnicity and beliefs, in addition to it India is a victim of huge class and socioeconomic divide, based on untouchability, gender, religion and economic status. Due to these constraints not even 30% of population can receive digital education. India has its unique topographic feature includes Ghats, river valley, plateaus, dense forest, deserts etc… these terrains and topography's are facing issues like proper electricity and internet facilities. Student's not able to engage digital classes consistently. As an alternative to this prerecorded class videos send through what's app or YouTubeso they can study at their convenience, but even these students have their own set of difficulties like lack of understanding of lessons, as a result they still deprived of the knowledge they should be provided with.

2. Gender differentiation: Implementation of digital learning creates gender differentiation. During COVID-19 lockdown period schools and colleges are shut downed, students rely on online classes, in that circumstance most of the students preferred to go work instead of attending classes, helps to their parents in domestic work, out of that major percentage was female students. Half of these could not get smart phone and internet packages as a result girls were spent most of their time and energy to engage household chores. Another problem is that parents denies to talk with their girl child and offered to serve on their behalf,where they had to talk in front of the male member which made them understand how difficult it is for them to study with online resources.

3. Internet drawbacks: Internet is an open source. Now a day's any information can accessible easily. It stands big challenge for online education because the teacher worked in colleges and universities expecting them to be uptodate digitally and deliver the concept effectively through online by keeping students psychology in mind, meanwhile it is unfair for children to adapt completely. There are main two factors affecting digital learning, one is difficult to maintain consistency by students. It is difficult for them to keep concentrate entire lecture, and another is for teacher to maintain body language and eye contact difficult to perceive in a digital teaching and learning.

4. The mental health of students: Young age group (6-12 year old) and adult student's for them digital learning system cost their mental health. They seem to involve in physical and practical way of learning than the virtual one. That is the age they should expose and engage

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with group of peoples. Restricting them with in the four walls can lose their confidence it creates mental strain. Subjects like science, mathematics requires practical experience. Humanity subjects requires social experience, digital learning system doesn't create scientific temper and critical thinking ability.

5. Excessive screen time: Excessive screening also becomes problem to student's mental health. As they engrossed them self with class work, home-work, assignments, everything going digitally it creates mental strain to them. It puts strain on their eye and brain

6. Conclusion

India is shifting towards digitalization. For that digitalization of education certainly help in bridging the gap between the teacher and students in near future. The benefit of physical education cannot be replaceable with any mode of education, as it provides opportunity to engage with others and interact with teachers also plays great role in children's cognitive development. However to be useful digital education should be complement to traditional mode of physical education. Both these supplement to each other, then only will the country can able to reach the benefit of digital education by improving capacity of students learning to make Indian education system prosperous.

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