Information Technology and Education in Covid-19

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Abstract: Today's era is technologically rich and advanced but this pandemic has made everyone realize the importance of technology that the future will most likely be totally reliant on it. The pandemic situation of Covid-19 has interrupted almost all the sectors around the world. It has massive impact on education sector also. In today's time when this pandemic has closed the traditional way of face-to-face classes in all the educational institutes, schools and colleges, Information technology reforms the Education sector in an efficient way. Now the Education sector has shifted to digital platform. With the help of this digital platform teachers and students interact with each other virtually from their houses only with the help of mobile or laptop and an internet connection. It has always been the most argued topic whether children should use smart gadgets, mobiles and iPads etc. or not. Most of the people especially parents were in the favor of not using of such gadgets but the year 2020 altered everything. At present, in this tough time of Covid-19 these technically advanced gadgets are the only choice for parents to let their kids to continue their study. The virtual platform has created a safe environment of teaching and learning for both teacher and student. Using virtual classes without stepping into the classroom the teachers teaches to the students and gives assignments to do and the students learns their subjects and submits the assignments to the respective teacher online. Also NEP 2020 states that all the educational institutes, schools and colleges must be aware of this future requirement that the youth must have fully command on the advanced technology, coding and artificial intelligence. So the educational institutes must take necessary steps towards making their students technological friendly, by including Information Technology and also Artificial Intelligence in their curriculum and teaching methodology. With the help of this tech- friendly attitude the youth can easily cope up with updated technology of the future and can use their innovative mind in the progress of their society and nation. Also by using their scientific and technological knowledge they can easily explore the new opportunities for themselves and also create for others.

Keywords: Education, Information Technology, virtual platform, technology, Covid-19,

Pandemic.

Research Outcomes

For Policy making: Government of India can work on such policies so that the children and youth living in the rural areas can also easily connect with the IT world. They don't have to go to urban areas for this:

1. Government can run awareness programs
2. It can work on such policies that work on promoting basic, formal and need- based IT education.
3. It can help and promote such work in which teachers create such education programs and syllabus
4. It can provide funds to skill-based program and platform for encouraging IT education
5. Fulfill the availability of computer, electricity and high quality internet access in rural areas.
6. IT companies and firms should provide internship to such students of rural areas.

Introduction

In this pandemic situation of Covid-19, teaching and learning process is revolutionized with the assistance of Information Technology. At the time of Covid-19 when all the educational institutes, schools and colleges are closed and also the situation ahead is not clear when everything will be fine, the collaboration of IT with teaching and learning process helped the teachers and the students a lot. Collaboration of IT with education sector has emerged as a powerful tool which helps the teachers, the students, the educational institutes and the online forums etc. in different- different aspects.

1. **For Teachers:** In the beginning it was little difficult for teachers, who were not very used to or updated to latest technology, to adapt technological way of teaching. But after a while they also became used to of updated technology. Instead of giving up they are continuously taking their classes online so that the education of students has no obstacle. We can say this time came with lots of learning for the teachers also. Instead of using conventional way of teaching, they are using digital platform for teaching very easily. Till now teachers used the computers only for record keeping of students like address,

roll number, fees details, marks, grade etc., but now they are using computers widely for multiple purposes. With the help of Information technology they can make their subjects easily understandable by demonstration using digitized board, audio- video material, animated presentation etc. They can also help slow students to catch up with the class in an interactive way.

2. **For Students:** Instead of using conventional way of pen and paper now the students are using computers, laptops, iPads for preparing their notes, assignments and presentation. They are attending virtual classes from their houses very easily. By using these gadgets their work has become very interesting. As compared to making bunch of notebooks they prepare their assignments or homework on iPads or laptops. Instead of reading heavy books they are taking help of e-books, educational sites or Youtube for understanding tough topics. All these things make their work process very interesting.

3. **For Institutes:** The education institutes, schools and colleges uses the Information Technology to keep of student's record safe. By this way student's records as well as teacher's, Professor's and staff's record can be keep in more secured and systematic way as compared to conventional way of files and register. In conventional way there was high risk of damaging or losing of files, so to keep track of files and register was the big headache. But now the large of record can easily be managed and retrieved in a secured manner.

4. **Online library**: Using online libraries, e-books, encyclopedia, revision material etc. on the internet anyone can take advantage of them to gain knowledge. These online libraries and materials can be accessed by any number of people from anywhere.

5. **Online Courses:** There are many IT companies, colleges and foreign universities are continuously making provisions that any person in the world can get their degree, certificate or diploma by taking online classes that they are providing. They are providing such educational program which can be easily attended and completed online. There is no need to attend physically in the classroom.

Positive impact:

1. The greatest advantage of information technology in the education industry is the completion of geographical distances through online classrooms and distance learning programmes.

2. It improved students' teaching and learning abilities. Teachers may make topics and concepts attractive and clear for students by using good PowerPoint presentations, projectors, computers, visual material, and mind training tools.

3. If teachers and students are unable to physically be present in the classroom (for example, in the event of a Covid-19 epidemic), they can connect through video conferencing.

4. Incorporation of Information Technology with education helps students to learn new technology skills. This prepares them for work in technological environment in future.

5. Students are more likely to learn if the teacher employs projectors, visual pictures, and PowerPoint presentations in the classroom. These technologies aid in the creation of greater interest in studies.

6. It encourages the idea of 'green revolution' and reduces the expense of paper and photocopying.

Negative impact:

1. More and more relying on technological gadgets and digital communication medium will results in the lack of writing skills.

2. The youth will not understand the importance of cursive writing, spellings, proper use of grammar.

 3. The use of such gadgets and technology is costly.

4. According to some teachers it is time consuming.

5. Being online every time is today's fashion for youth. Stay connected to the online world is resulted in lack of concentration in their studies and lack of interest in sports and extracurricular activities also.

6. According to many experts that students' imagination can be affected or their ability to think can be reduced.

 7. With the advancement of technology, the chances of cheating have also increased.

Review of Literature

1. Anyaegbunam NG and Anyaegbunam FNC explains in paper "Exploring the Role of ICT in Science Education.Journal of Information Communication." that If properly applied, ICT has the potential to have a significant positive impact on the learning and research processes. However, in order to reap the maximum benefits from technological advancements, we must guarantee that their application is based on strong pedagogical standards guided by educational research.

2. Blurton, C. explains in paper named "New directions in ICT-use in education." This report used data from Worldbank and Internet World Stats to characterise the roughness of internet penetration among the world's population.

3. Castells, M. explains in The Information Age: Economy, Society and Culture. Vol 3: End of Millennium, The revolution in information technology will amplify its transformative potential. The completion of a global information superhighway, as well as mobile telecommunications and computer power, will define the twenty-first century, decentralising and disseminating information power, fulfilling the promise of multi-media, and boosting the delight of interactive contact.

Material and Methods

1. Lots of articles and websites related to the topic.
2. The working process of teaching and learning in schools and colleges via digital platform in the current situation of covid-19, with its pros and cons were analyzed and reviewed to collect the literary material.

Conclusion

Today's 21st era is technologically advanced and rapidly developing. So it obviously becomes necessary for all of us to be tech friendly or tech savvy. Because of this pandemic situation the collaboration of Information technology (ICT) with education sector was necessary and also gave great advantages to the youth. With the help of modern teaching methodology and Information technology our future generation will become technological friendly. Then they can easily cope up with modern technology and use their innovative ideas for the progress of our nation and will create a more advanced and unified world.

Correlation with Ancient Indian Literature: In the ancient India, gurukul system was the only way of teaching-learning process. The student used to live a very simple life at guru's place and learn. The gurus used to give knowledge to their students about every subject like literature, Vedas, medicines, philosophy, astrology etc. and also prepare them for real life problems.

Teaching methodology in ancient time: In ancient India either it is called Vedic period and Buddhist period, open lecture or discourse and practice were the only way of teaching and learning. There were different types of teaching methodology used in ancient time, such as-

1. **Explanation method**- In the explanation method or **vyakhyaa vidhi**, the guru used to explain the subject or particular topic to the students. They also used to illustrate and connect their teachings with real life, so that the students can easily understand and apply these lessons in their upcoming life.

2. **Listen, peruse and practice method** – In the Listen method i.e. **Shravan vidhi** the shishya (students) used to listen carefully what guru said and understand. In the Peruse method or **Manan vidhi**, the students or shishya used to think over the lessons given by their guru. In Practice method or **nididhyasana vidhi**, after listening and pondering the teaching or lessons of their guru, the students used to imply practice those lessons to remember.

3. **Memorization or Repetition method –** This method was **called punaravriti vidhi**. Basically this was the primary and natural method of learning. In this method the students used to imitate their guru's words and using this method of repetition they memorized their lessons.

4. **Story telling method**- In story telling or **Katha kathan vidhi**, the guru used to tell stories to their student to teach them about moral or ethical values so that they can be ready to face the different type of real life problems and take correct decisions.

5. **Question- Answer method –** This question-answer method or **Prashnottar vidhi** is also the oldest and natural method of teaching and learning. In this the students used to ask about their doubts and the teacher gave their answers.

6. **Hands-on method or Practical method**- This is already proven that India was very advanced in the field of medical science specially in ayurveda since the ancient time. So by hands- on method or **Prayogaatmak vidhi** students of medical science used to learn their lessons by observation and practical methods.

7. **Seminars or Debate method**- This method of debate or **vaad-vivaad vidhi** was also very helpful for the students to gain knowledge.

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