



ORIGINAL RESEARCH PAPER

Education

AN EMPIRICAL STUDY ON DIGITALIZATION IN HIGHER EDUCATION SYSTEM

KEY WORDS: Higher Education, Online /Offline mode, e-learning, teaching staff, traditional learning.

Dr. Varun Gupta*

Educationist/Educator, Education Advisor to the State of African Diaspora, Indian Peace Ambassador, Executive Vice President- On Sky Global || Gurgaon (India) *Corresponding Author

ABSTRACT

Education can neither be completely online or offline but a blend both of them. The current time demands that higher education should be promoted through e- learning thereby changing paradigms of traditional education. Here, the development of teaching staff was highlighted as they are the leaders which could give the direction to the new emergence of e-learning. This paper presents the theoretical aspect of the need of online mode for facilitating higher education simultaneously making the readers aware about its pros & cons.

1. Introduction

Higher education is tertiary education leading to award of an academic degree. It is also called post- secondary education ,third level or tertiary education. This is an optional final stage of formal learning that occurs after completion of secondary education & one of the key drivers of growth performance, prosperity & competitiveness in national & global economies. A person can attain higher education through either modes i.e. online or offline. Since, technology & education are interdependent. Education is neither online nor offline but distributed between learner, teacher and social, material and digital world (Fenwick 2015). India's higher education system is the world's third largest in terms of students, next to China and the United states. The University Grants Commission (India) is the main governing body behind regulating higher education which enforces its standards, advises the government and helps to coordinate between the Centre and the States.

Twenty first century is considered as "information period", since we are confronting an innovative and correspondence unrest which has the one-sided impact of making information as a saleable item in the open world market. So, this paper will focus more on digitalization mode of higher education. The "e" of e-Learning stands for electronic learning, efficient learning, exploratory learning, experiential learning, expanded learning, extended learning, easy-to-use learning, and enhanced learning (Zhou, Li, Wu, & Zhou, 2020). The United States is the birthplace of e-learning. After 1998, e-Learning has been being spread worldwide, and has rapidly expanded from North America and Europe to Asia (Zhou, Li, Wu, & Zhou, 2020). As per International Working Group on Data Protection in Telecommunications (Telecommunications, 2017) "e-learning" is understood as the use of technological tools and media that assist in the communication of knowledge, its development and the interaction among teachers, students and educational institutions.

Digitalization is leading a new era of transparency, efficiency and accountability, in the field of education which has brought disruptive changes with a potential to drastically alter the traditional landscape of education. It has altered the meaning education from "knowledge transfer" to " self- driven enterprise" (Today, 2020) & helped in transforming education from an academic exercise to an engaging exercise. In fact , the government is going to establish "Higher Education Financing Agency" to look over the infrastructural development for promoting higher education (In, 2018) .Thus, India as a nation is on a growth path of developing education sector and digitisation is supporting the collective efforts of public and private sector to realise the dream of becoming the education hub of the world.

Presently, in current times Novel Coronavirus has brought the world to halt. Almost all countries closed all schools, colleges and universities. According to pearson.com more than 300 million learners worldwide are affected by the spread of coronavirus, and educators are striving to ensure that learning continues, in spite of massive disruption. But this did not stop the teachers doing their teaching. Teaching is being done online, on an untested and unprecedented scale. The move to remote learning has been enabled by several online tech stacks such as Google Classroom, Blackboard, Zoom and Microsoft Teams, all of which play an important role in this transformation. With this pandemic situation the online digital learning and teaching acted as a supplementary tool. But most of them faced the difficulty in streaming it due to lack of infrastructure or were not well trained for it.

Education system will change drastically after pandemic COVID-19. There was an aggressive national campaign to bring computers and the internet to schools and colleges, but lockdown taught us that teaching can be done through virtual mode as well. After a pandemic the digitalization of the classroom will go very fast. Tabs with E-books will take the place of hard copy. Lectures will be done online, if not all, and then at least one lecture per week will go online. Distance learning and self-paced learning will raise the standards and increase diversity. Webinars and online conferences will be taken by teachers as a part of their training. Most of the meetings will go online to maintain social distancing for very long. It is proposed here that during the COVID-19 epidemic. Schools & colleges are using internet platforms to guide students to realize "School's Out, But Class's On", i.e., "School is closed, but student learning is continuing online" or "Online Home Study."

This paper presents the role of digitalization in promoting higher education thereby highlighting its needs & importance.

2. Review of Literature

Knowledge coupled with creativity and innovations is the most powerful currency that universities create and contribute to society and mankind and define higher education's purpose, we address problems that have no borders in an increasingly flat world. Technology for delivery of academic content has two important components. Education management and delivery includes content, and medium of communication from a digital platform or a teacher to an aspiring student. Technology has been the part and parcel of human civilization right from the beginning. Humans have developed science and technology in order to meet the challenges of the natural environment and to meet the human requirement. Also to provide solutions to the problems faced by the societies due to the environment. The Internet is a new form which is emerging out as a new defining

line in society.

Thus, many researchers have worked prior in the relevant field & their studies are as follows:

(Chavan, 2020) stated higher education as an input to industrial development only if its reformed with flexibility in current times. Development of teachers is considered crucial for the development of the future of higher education. She highlighted the need for digitalizing the education system as it's the only factor where our country is lagging behind.

(Rajeshwari, 2020) studied the impact of globalization on higher education with the focus on up gradation of higher education through human resource development. The study concluded that through globalization the meaning of traditional learning is revived with the inclusion of learning through oneself, hints, deep involvement, with team members, diverse cultures etc.

(Today, 2020) laid down the benefits of promoting higher education through digitalization as it has a wide coverage for larger segment of society which is available all 24*7 hours with flexibility & assurance of maintenance of uniformity of knowledge for all sections of society at minimum infrastructure & maximum positive consequences.

(Barman & Misra, 2020) stressed on quality enhancement in higher education in India which is totally dependent on stakeholders like students(primary) state, society, employer, parents, management ,teachers etc. Total Quality Management needs to be focused upon in reference to performance of higher education. Student ethics was tested as an issue. Thus, quality should be imbibed through premise development, faculty upgradation, revised & balanced evaluation system, improvement in habits of students, industry exposure, reforms in examination etc.

(Zhou, Li, Wu, & Zhou, 2020) defined distance education as method of learning from the course contents collected from the application of internet .The study mentioned the impact of COVID 19 on online education that through major lockdown online education was boosted & thus it was used as a powerful tool in dealing with such pandemic situation. The concept of " School out , But class's on" was explained which stated that education can be imparted through various means even if the institutions are completely shut down.

(Kornelakis & Petrakaki, 2019) focused on increasing employability through modification in the existing traditional education system. Some measures suggested on part of students to develop employability skills such as self-learning, participation in lectures, attending career advising workshops etc.

(Sinha, 2019) carried out her study to show the level of women in higher education. The study highlighted the present condition of women, barriers in the way of grabbing higher education, solutions to these problems etc. The study also put forwarded the availability & benefits of MOOC courses.

(Song, Rice, & Young, 2019) explained the multi dimensions of online learning environment. All pros & cons of online learning were studied. Well-designed interaction activities need to be designed in order to increase the effectiveness of online learning otherwise it continues to be the biggest drawback of this. Keeping the content accurate according to the purpose of the learner is the most required thing as this only allows the whole learning process un diverted.

(Wong, et al., 2019) highlighted the virtual spaces designed for learning purposes such as MOOC courses as these spaces encourage scope for online learning & improve the reach of

distance education. The study strongly supported that self-regulated learning is promoted by online education as students are prompted to learn by themselves through limited study material & thus they are attracted towards open vistas of knowledge. The study also discussed the applications of self-regulated models laid by Zimmerman.

(Fawns, 2018) differentiated between online education & classroom teaching on the basis of effectiveness achieved after learning from above ways. Eye to eye instructing suggests that learning happens when at least two individuals take part in coordinated discussion or communication and, regardless of the regular utilization of videoconferencing innovation. Through digitalization, workstations and cell phones which were prohibited in classrooms, computerized innovation has made them the essential part of these classrooms. The study concluded on the fact that technology & education are interdependent & learning can not be digitalized. Thus, digitization can be a path to learning.

(In, 2018) discussed the various platforms available for promoting online education in India such as SWAYAM (teacher's training) , DIKSHA, virtual reality enabled classrooms, MOOC (Massive Open Online Courses) platforms, NPTEL(National Programme on Technology Enhanced Learning). The utility of these platforms were explained because they will help in "digital convergence" & " development of innovative infrastructure for education."

(Panadero & Tapia, 2014) explained the model laid down by Zimmerman's self -regulated learning. According to the model, self-regulated learning takes place in three cyclical stages: forethought (learner set the goal & plans strategically for it), performance(learner executes the task,) & self-reflection(learner critically analyzes himself.). Further, it also added that all stages are interdependent.

3.Synthesis:

Acquiring / up gradation of knowledge is known as learning. Learning is a continuous cyclic process. It starts from what one knows. It goes towards what one wants to know.

Teaching in the digital age is increasingly challenging. No longer does a teacher enjoy a positive knowledge surplus over the taught. In fact, the knowledge gap is rapidly narrowing between the teacher and the taught. The teacher not only has to acquaint and harness modern aids, but also has to infuse age old and time tested virtues of social, physical and mental well-being in an increasingly cluttered and highly competitive environment. Modern teachers will need to reinvent themselves by embracing technology and constantly evolving to remain ahead of the knowledge curve. They will have to reach out to their students and play catalysts for converting information into knowledge. Application of academic concepts in real life situations, ensuring universal assimilation and creating a healthy and conducive learning environment will be challenges that newer technologies can never overcome.

Online education is a multifaceted venture. Retaining student's interest is the major issue in online teaching. It is very difficult to maintain attention of the students in online classes which is much easier in face to face classes. Various studies suggest that its more harder to teach distance students than face to face study. Many academicians shown decrease in attendance of students who are attending online classes rather than in person

Availability of various online teaching instruments are not possible for all such as access to high speed internet, lack of technological tools, affordability etc. Students without an Internet facility will experience an obvious difficulty while taking part in the assessment process, which would

unfavorably have an effect on their grade point averages (GPAs). Educational institutes need to confirm that all the students should get equal access to learning. Technology is helpful in online teaching but to assess students based on this is a really difficult task because the evaluation system at present is the outdated version, it needs radical change. More objective types of questions are to be included, more weightage is necessary for practical and projects. The whole process should be fair and unbiased.

If knowledge is imparted using advanced digital teaching and learning tools, and society is made aware of where we are currently lagging behind, our country can easily emerge as one of the most developed nations in the world. There is a need to implement innovative and transformational approaches from primary to higher education level to make Indian educational system globally more relevant and competitive.

REFERENCES

1. Barman, D.S., & Misra, S. (2020). The Role of Institutions Enhancing The Quality Education of Higher Studies in India : An Overview. Purakala.
2. Chavan, D. S. (2020). Higher Education in India: Challenges and Opportunities. Purakala.
3. Fawns, T. (2018). Postdigital Education in Design and Practice. Cross Mark.
4. In, A. (2018, July 12). Reforming Education through Digitisation. Retrieved from Digital Learning: [https:// digitalllearning. eletsonline. com/ 2018/ 07/ reforming-education-through-digitisation/](https://digitalllearning.eletsonline.com/2018/07/reforming-education-through-digitisation/)
5. Kornelakis, A., & Petrakaki, D. (2019). Embedding employability skills in UK higher education: Between digitalization and marketization. *Sussex Research Online*, 1-25.
6. Panadero, E., & Tapia, J. A. (2014). How do Students self- regulate? Review of Zimmerman's Cyclical model of Self- Regulated learning. *Anales de Psicología*.
7. Rajeshwari, D. R. (2020). Impact Of Globalization On Higher Education In India. *Studies in Indian Place Names*.
8. Sinha, M. (2019). Present Scenario of Women in Higher Education in India- Opportunities & Challenges. *The research journal of social sciences*, 56-63.
9. Song, D., Rice, M., & Young, E. O. (2019). Participation in Online Courses and Interaction With a Virtual Agent. *International Review of Research in Open and Distributed Learning*.
10. Today, I. (2020, June Tuesday). Digitisation of education: Making teacher's life easier or complicated. Retrieved from <https://www.indiatoday.in/education-today/featurephilia/story/digitisation-education-1045356-2017-09-18>
11. Wong, J., Baars, M., Davis, D., Zee, T. D., Houben, G. J., & Paas, F. (2019). Supporting Self-Regulated Learning in Online Learning Environments and MOOCs: A Systematic Review. *International Journal of Human-Computer Interaction*, 356-373.
12. Zhou, L., Li, F., Wu, S., & Zhou, M. (2020). "School's Out, But Class's On", The Largest Online Education in the World Today: Taking China's Practical Exploration During The COVID-19 Epidemic Prevention and Control as An Example. Largest Online Education Practice with COVID-19 Epidemic in China.