Blended Learning Technology in Teacher Education

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ABSTRACT

With the change of time newer methods of teaching and learning have also been evolved based on societal and global needs. The usefulness of mixed approach of blended learning is very much due to the convenience of the student, his understanding and comfortable qualities like flexible system in terms of time and place. It is very important for the teacher and the future teacher to be aware of the changes taking place in education through this important and innovative method. In addition to explaining the concept and importance of blended education in teacher training institutions, this paper looks at the need for this approach in higher education, especially in teacher education. The concept of blended learning is an alternative to the traditional teaching methodology which will be able to resolve various constraints of the existing system and will provide best techno savvy practice for both teachers and students. It helps in reducing the current challenges of education by creating a cooperative environment among the educational community. An important feature of mixed approach is that both online and offline mediums overcome each other's shortcomings.

The purpose of this study was to find out the need for Blended education in Indian context, its approach in teacher education programme and an alternative solutions to educational challenges. This is a systematic review paper. Papers were referred through different online journals like academia, research gate etc. and some papers were selected for in depth analysis as per need of the present study. Content analysis method used for this study.

Keywords: Teacher Education, Blended Learning, Educational Challenges, Indian Context, cooperative environment, mixed approach

1. INTRODUCTION

Mixed system education or blended education is a formal education program in which students complete one part of the curriculum in the classroom and the other part is accomplished using digital and online resources. (Blended Mode of Teaching and Learning: Concept Note, UGC, 2021).In blended learning, the control of time, place, method and pace is in the hands of the student. As per the National Education Policy 2020 published by the Government of India, blended education should be experiential and activity based. It is not just a mix of online and face-to-face modes, but shows a well-planned combination of meaningful activities in both the modes.

The mixed education system is limited to only science and technology, it is not so. It has become an impenetrable weapon of subject experts and teachers of all subjects. Through this, subjects like social science; arts, humanities, education, and commerce and teacher education are also being taught easily and effectively. Along with teaching practical subjects using blended education, many types of certificate courses are also being run successfully all over the world. Blended learning is a combination of self-directed process and event-based activities along with face-to-face learning. It teaches how to interact with faculty, peers and course material through proper use of technology. The blended learning concept combines classroom instruction with the benefits of information communication technology (ICT)-assisted learning, which includes both offline and online learning. It also allows for collaborative learning, creative learning, and computer-assisted learning It defines the process of online teaching and learning, which includes direct instruction, indirect instruction, collaborative learning and teaching, and personal computer-assisted learning. (Lalima and Dangwal, 2017)

Blended education is a panacea for all the challenges related to infrastructure of educational institutions, shortage of teachers, students sitting in remote areas and attendance of teachers in class, challenges related to prevention of communicable diseases as well as continuing education etc. Through this, a flexible system of

education is obtained in terms of time and space, at low cost. That is why it is included in the category of student-centered method.

Need for blended education in Indian context

There are so many challenges before Indian Higher Education. In such a situation, there is a need to re-establish educational practices from a new perspective due to technological use, socio-economic differences in higher education institutions. These challenges include a large population of learners from different backgrounds, needs, motivations, abilities, learning preferences, time availability and course content requirements; The greater number and diversity of higher education places without the corresponding increase in funding; Responsive and flexible to more "customer" demands of the course; and the campaign to use Information and Communication Technology (ICT) in teaching and administration, etc. (Bansal, 2014).

In a developing country like India, where there is always a shortage of resources according to the population. In that country, fulfilling an important goal like education in fewer resources is not less than a challenge. Providing easy access to quality education from door to door and from village to village is possible only with full use of new technology. Online education is a good option to make easy access to students and teachers in a low budget. Considering the prevalence of online education, the concept of blended learning has to be accepted to increase enrollment in higher education in the Indian context. Subject experts and academicians living in different regions of India can be connected collaboratively through online medium (which is an essential part of blended learning approach). In this way it can be made an integral part of the education system. In the Indian context, it will be able to play an important role in reducing the current challenges of education by helping in creating a cooperative learning environment. Along with this, it will also be helpful in building a new tradition related to education. An important feature of mixed approach is that both online and offline mediums overcome each other's short comings. In the Indian context, it can be said that due to the diverse society, there are diverse socio-economic challenges. To prepare the Indian student-teacher to adopt modern technology-oriented teaching methods in the day-to-day global scenario. To make Indian student-teachers skillful to represent their work best in the race for global stage and to provide quality education in simple form.

Many types of moocs courses are being successfully run through the platform itself by many agencies related to Indian education like UGC, Institute of Higher Education, and All India Institute of Technical Education etc. Through these moocs courses, students get opportunities for unlimited participation by universities. Through these courses, where teachers keep increasing their academic abilities from time to time, students also prepare themselves for future life by taking new courses.

2. METHODS

This is a systematic review paper. Papers were collected through different online journals and websites. After title and abstract analysis some paper were selected for in depth analysis as per need of the present study. Research papers, Concept Notes and NEP 2020 govt. document all related to topic were referred for this study and detailed analysis of these studies are presented in this paper.

Alternative solutions to educational challenges

According to 21A of the Indian Constitution, education is now the right of every child. In such a situation, there are many physical barriers, social, economic, linguistic etc., in the Indian context to make education accessible to every child. (Bhattacharya &Sharma, 2007). To solve these problems, the path of blended learning shows us a way to maintain the quality of education and as an alternative to skill acquisition.

Class-room attendance of the student has always been a challenge in higher education. Keeping the student in the classroom regularly by bringing the student to the class used to be a big problem for the educational administration and the teacher. Being present in class on time is also a big problem due to heavy traffic jams in metro cities. Due to limited resources in a population-dominated country like India, it was considered an impossible task for common students and all common people to make accessibility of quality education with subject experts. But now it has become possible due to the mixed medium education system.

The availability of limited school and college buildings in proportion to the population has also emerged as a challenge over the years.

Blended education is emerging as an alternative way to convert the challenges that have been going on for many years into opportunities. By changing the system of educational challenges into opportunities, the work of providing teachers, experts their access to far-flung students is done through mixed education approach. Blended education is making a wonderful contribution in dealing with the challenging system of old difficulties of Indian education.

Through the blended learning approach, the benefits of knowledge of global level academicians, scholars are easily reaching the students located in any part of the world without spending much money and time.

Every student has the right to quality education. In such a situation, this work is being done easily through mixed education. Organizing conferences, workshops, seminars related to higher education and educational research at international level on virtual platform Zoom, Ciscowebex etc. has become common now. Apart from this, other tools are also used for online classes. In this way educational institutions have become comfortable by using mixed learning approach with the help of these tools in setting high quality standards.

It is now very easy to make quality education accessible to every student by ensuring the achievement of qualified processed person through mixed medium to meet the lack of availability of skilled teachers. Through this mixed medium related to student interest, it will be easy to connect rural students in the mainstream of education.

Need for mixed learning approach in teacher education

For Best Practices in Teacher Education Curriculum, there is a growing demand for a blended education curriculum and there is always a pressure on teacher-educators to provide, review and revise the best, meaningful and engaging instruction. (Kim at all, 2015)An alternative to all this appears to be online teaching, which is a necessary part of blended learning. It is necessary for the trainee-teacher to remove the theoretical and practical gaps for the benefit of the students in his/her class and use this type of thought-provoking exercise program, which can help in effective teaching by removing the teaching challenges. With its use, the teacher should be able to make efficient decisions and become proficient in better teaching strategy skills. There are lot of advantages which reflects the need and importance of blended learning in teacher education programme. Some points are mentioned below

1. Blended learning is used as an instructional model. Using student-centered guidance from online lectures keeps students active and interactive.
2. It enhances the interaction between student-teacher, student-student, student-material, teacher Educator -teacher trainee, teacher and student-outside resources.
3. With the help of this method development of evaluation system for students and trainers can be done easily.
4. The blended provision is more flexible for learners they can study at their own pace, slow down the learning process where they lack knowledge or speed up and drop practice when they feel confident. (Blended Mode of Teaching and Learning: Concept Note, UGC, 2021)
5. Blended education has traditionally changed the role of teachers and learners. The reason for this is to provide opportunities for the learner to become more active and competent by the teacher. This is the reason why many methods of blended learning provide opportunities for self-learning to the student.
6. Different Models of Blended Learning Suggests different models of integrating learners along with resource support and training according to individual variation in different situations. Not all types of models are suitable for all situations.
7. In higher education it is activity based, and emphasizes on self learning. It strives to increase the quality by reducing the class time, and by combining more than one medium, it creates an effective teaching-learning environment.

8. For best results, two different parts are mixed. The basic principle is that face-to-face oral communication and online written communication are "better integrated so that the strengths of each unique learning experience are tailored to the context and intended educational objective" Larkin (2010). The integration should be in such a way that there should be no mixed education. (Mal &Adhya. (2020).

9. Some additional educational needs are also met for the learner as well as the instructor and lecturers through a blended learning strategy.

10. This is an important method as it overcomes some of the limitations of online learning such as isolation, limited feedback and lack of responsibility among students. (Dizuban, Hartmann, & Moskal, 2004; Locke, 2006). Knowledge of such innovative teaching methods helps prospective teachers in their professional advancement. (Kang, Jung Jin. (2014).

11. The use of a blended teaching approach is essential to improving the potential, achievements and professional knowledge of prospective teachers. Keengwe & Kang(2013)in their study "A review of empirical research on blended learning in teacher education program" pointed out that during a literature review on blended approaches in teacher preparation programmes that the blended approach is effective for improving teacher candidates' competence (Kolopy & Arnold, 2009), achievements (El-Deghidi & Nubi, 2008), and professional knowledge (Turvey, 2010).(Keengwe &Kang.(2012).

12. According to Mayedwa et al, (2016) in their study "Teacher attitudes towards digitally enabled classrooms in Western Cape government schools" they found that the technological revolution of the past decades has prompted teachers to rethink their way of teaching using ICT. Teachers today must have the necessary skills and abilities to teach content and technology by integrating them into the curriculum.

3. CONCLUSION

With the change of time, there have also been evolving different methods of teaching and learning. It is very important for the teacher and the future teacher to be aware of these changes. The survey studies so far show that the knowledge of such innovative teaching methods helps the prospective teachers in their professional advancement. Through a blended learning approach, the knowledge of world-class academicians and scholars are easily accessible to the students from around the globe without spending much money and time. Through this approach many types of challenges related to education can be converted into opportunities. Its effectiveness can be increased by using problem-based learning, discussion, quiz and enquiry. Therefore, it is essential for teacher educators to incorporate appropriate amounts of online and face-to-face activities while creating a blended learning plan. Program designers must combine teaching with fieldwork. Integrating activities such as collaborative learning, project-based methods, and problem-based learning into blended learning can reduces its main drawbacks, such as reducing student-teacher separation, lack of motivation etc. and enhancing better understanding of the curriculum.

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REFERENCES

Bansal, Punam. (2014). Blended Learning in Indian Higher Education: Challenges and Strategies*, International Journal of Applied Research and Studies* Volume 3(Issue 2). Research Gate, Retrieved from

https://www.researchgate.net/profile/PunamBansal/publication/337439165_Authors_Copy_Restricted_to_Personal_Use_Only_any_manipulation_will_be_against_copy_Right_Policy_iJARS_Blended_Learning_in_Indian_Higher_Education_Challenges.

Bhattacharya & Sharma. (2007). 'India in the knowledge economy - An electronic paradigm. *International Journal of Educational Management.* 21(6):543-568, Research gate. Retrieved from. https://www.researchgate.net/publication/249360041_India_in_the_knowledge_economy_-_An_electronic_paradigm

Blended Mode of Teaching and Learning: Concept Note, UGC-2021). Retrieved from https://www.ugc.ac.in/pdfnews/6100340_Concept-Note-Blended-Mode-of-Teaching-and-Learning.pdf

Byrka, Marian F. (2017).Blended Learning Strategy In Teacher Training Programs. *Information Technologies and Learning Tools* 62(6):216, Research gate.Retrieved from. https://www.researchgate.net/publication/331469371_BLENDED_LEARNING_STRATEGY_IN_TEACHER_TRAINING_PROGRAMS

Kang, Jung Jin.(2014). Learning to Teach a Blended Course in a Teacher Preparation Program, *CITE* journal. Retrieved from. https://citejournal.org/volume-14/issue-1-14/current-practice/learning-to-teach-a-blended-course-in-a-teacher-preparation-program

Keengwe &Kang.(2012). A review of empirical research on blended learning in teacher education programs. *International journal of information and communication technology education: an official publication of the Information Resources Management Association* 8(2):81-93.Research gate. Retrieved from. https://www.researchgate.net/publication/262372005_Blended_Learning_in_Teacher_Preparation_Programs_A_Literature_Review

Lalima & dangwal, (2017). Blended Learning: An Innovative Approach.*Universal Journal of Educational Research* 5(1):129-136.research gate. Retrieved from. https://www.researchgate.net/publication/313882997_Blended_Learning_An_Innovative_Approach

Mal &Adhya. (2020). CONSTRUCTIVISM-BASED BLENDEDTEACHING LEARNING FOR TRANSFORMINGINDIAN HIGHER EDUCATION. *ASSOCIATION OF INDIAN UNIVERSITIESNEW DELHI (INDIA).AIU publication*. Retrieved from https://www.aiu.ac.in/documents/AIU_Publications/Reimagining%20Indian%20Universities/31.%20Constructivism-Based%20Blended%20Teaching%20Learning%20For%20Transforming%20Indian%20Hig

Mayedwa et al. (2016).Teacher attitudes towards digitally enabled classrooms in Western Cape government schools. Research gate. *EmergiTech*.Retrieved from. https://www.researchgate.net/publication/309917130_Teacher_attitudes_towards_digitally_enabled_classrooms_in_Western_Cape_government_schools

National Education Policy. (2020).Ministry of Human Resource Development*, Government of India. Ministry of Human Resource Development.Govt. Of India.* Retrieved from. https://www.education.gov.in/sites/upload_files/mhrd/files/NEP_Final_English_0.pdf

Norberg, A., Dziuban, C., Moskal, P. (2011).A TIME-BASED BLENDED LEARNING MODEL. *Diva portal.* Retrieved from https://www.diva-portal.org/smash/get/diva2:706050/FULLTEXT01.pdf