Blended Learning: An Essential Component of India's Educational System

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Abstract: *Blended learning is an inventive concept that consolidates the focal points of routine classroom educating with technology-assisted learning, enveloping both online and offline modalities. It makes prospects for agreeable learning, hands-on learning, and computer-aided learning (CAL). For mixed learning to be effectively actualized, there must use caution endeavours, a great demeanour, and considerable cheap, as well as exceedingly persuaded instructors and learners. It is complex and troublesome to organize since it interfaces different approaches. In this ponder, we explore the concept of mixed learning, the most components of mixed learning, and the conditions for effective usage of mixed learning. In expansion, we cover the cover-up of the presentation of mixed learning into the Indian education framework. The reason of this think about is additionally how critical Blended learning is.*

Keywords: Blended learning, Traditional classroom instruction, ICT-supported learning, Computer Assisted Learning (CAL), and web-based learning

I. INTRODUCTION

The instructive stage is as of now going through a change. It is endeavouring to join modern innovation to confront development challenges and react to person needs (Becker et al., 2017). Whereas it is persistently seeking out for inventive approaches to accomplishing the objective of giving everyone get to to top-notch instructive openings, it isn't however completely arranged to forsake the customary strategies of information exchange (Guskey, 2002) since of issues with insufficient budgets, insufficient offices, and the benefits of face-to-face interaction (Philipsen et al., 2019). Indeed the understudies are encountering a twofold identity. When inquired which sort of instruction they would prefer—traditional classroom instruction or ICT-supported instruction—teacher candidates are oftentimes nearly equitably part between both choices (Vaughan, 2010). Aside from a few little downsides, the conventional approach to instruction gives an basic individual component to the method of educating and learning.

The way instructors act and think contains a coordinate affect on how pupils' identities create (Howard and Mozejko, 2015; Saunders, 2013). The viable points, in expansion to cognitive and psychomotor objectives, are as it were met by means of face-to-face interaction. The ordinary face-to-face approach helps within the arrangement of a strong esteem framework. Conventional strategies of instruction make it less demanding for understudies to create social competencies such as collaboration, sharing, communication, and regard for others' conclusions. Understudies obtain information not exclusively from reading material or teachers within the conventional classroom setting, but moreover from their fellow students. Through intuitive with their peer bunches, understudies pick up a assortment of aptitudes on the play area and in small-group settings such as canteens and lounges. All these variables are pivotal for sound identity improvement. As was already said, the routine procedure offers points of interest of its claim but moreover has disadvantages. The taking after are its blemishes:It is primarily failing to address each student's unique needs because of the inappropriate pupil-teacher ratio.

The difficulty of teaching students who have physical difficulties is something it is not adjusting to.

There is no integrated classroom training for teachers.

Since attendance is essential and the examination process is based on the yearly examinations, it is inadequate to manage the challenges brought by the irregular pupils. Due to rigidity, irregular students are essentially expelled from the mainstream of the educational system if they don't show up for the exam, which wastes their entire school year.

Similarly, children who leave school for any reason do not have the opportunity to re-enter the formal educational system since there are no professional counsellors, no teachers with the proper attitude, and very few follow-up activities in the schools.

The objective of universal education is still far off because not all children can attend school.

Students from underprivileged groups, those who live in remote locations, and those who are ill are unable to benefit from this formal, traditional style of instruction.

Students suffer concurrently from a lack of teachers, and their learning is complicated by ineffective teachers.

The present situation of our system of education leaves our students unfit to fulfil the demands of the modern-day job marketplace and professions. This is largely due to a lack of routine course updates, outdated books, and unmotivated professors who fail to develop their knowledge and professional skills.

Making their knowledge consistent with current technological development and globalization, reducing instructional errors, raising standards, and increasing student exposure (Philipsen et al., 2019) is imperative. The process of teaching and learning may be enabled by ICT. ICT-supported learning gives the teaching and learning process a new dimension (Gerbic, 2011), exposes students to a vast body of knowledge, and presents them with many possibilities to learn, unlearn, and relearn. This method of instruction can be beneficial for all learners, even those who are physically challenged or in the workforce. It facilitates reaching all students. Basically, if you can't get to school, schools should be able to get to you. That's what Swami Vivekanand said. And now, with the help of ICT, schools are doing the same.

The proposed solution is a holistic approach that combines crucial elements of conventional and technology-assisted teaching methods. A thorough examination of both modes of teaching and learning indicates that each has its strengths and weaknesses and can meet different educational needs, demands, and goals. Today, a blended learning strategy—which combines the benefits of both delivery methods for the student's learning—is in high demand.

II. BLENDED LEARNING
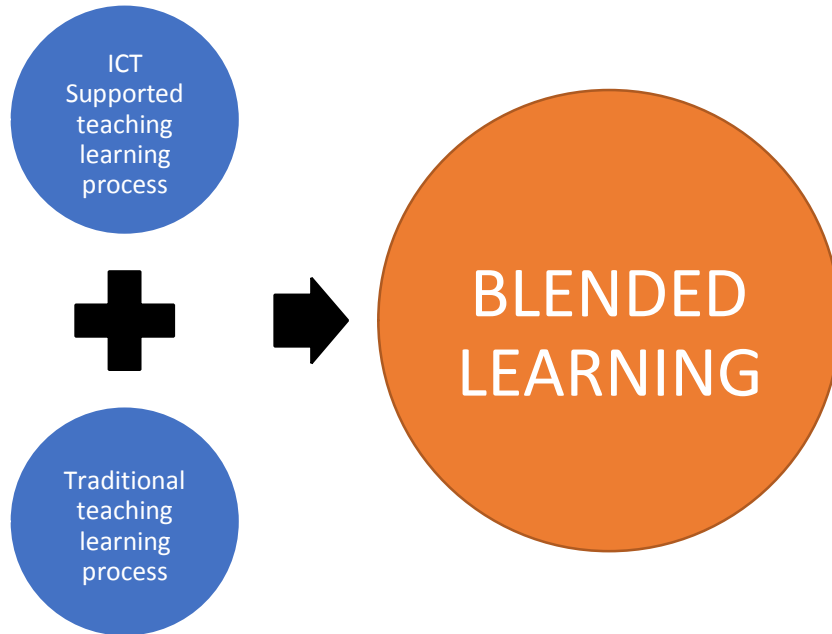
The following diagram explains blended learning:

Figure 1. Blended Learning Model

The concept of blended learning involves designing the learning experience to incorporate a combination of oldtutorial room teaching and ICT-supported education. This approach incorporates various instructional methods, such as direct and indirect instruction, cooperative learning, and computer-based individualized learning. The figure demonstrates the different elements that comprise blended learning.

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Face-to-face instruction: Blended learning provides conventional classroom education with the time it requires, providing students with many chances to engage with their instructors and therefore be influenced by their personalities, behaviours, and moral ideas. Face-to-face engagement facilitates synchronous communication. Teachers and students may get instant feedback, which enhances the teaching and learning process. Face-to-face interaction personalises the process and is very motivating for both instructors and students.

Peer group interaction: On the campus of the school, students learn formally as well as informally through their interactions with their peer groups (Hussain et al., 2011). Through informal interactions with their peer groups, students will practice many important social ideals and life skills (Collier, 1980). The school campus provides various opportunities for this during recreation and during social interactions.

Collaborative conversation and sharing of concepts among a team: Classroom teaching not only allows students to interact with teachers, but well-designed strategies also allow students to engage in discussions with their classmates about various aspects of the course and exchange ideas (Wieser & Seeler, 2018). This aids in the development of confidence in students, the removal of hesitation, the development of effective communication skills, and the development of good listening skills.

Gaining entry to an Electronic Library: E-library access is a component of blended learning's ICTsupported teaching and learning. Students have restricted access to the school library in the traditional form, but a digital library allows them access to a variety of books on a variety of topics that are pertinent to their topic (Knight, 2013). This aids in achieving the cognitive objectives by broadening their horizons and enhancing their knowledge (Made et al., 2016).

Virtual Classroom: Understudies have the adaptability to memorize from anybody, anytime, and anyplace in a virtual classroom (Wang and Newlin, 2001). In any case of topographical impediments, a understudy can take an interest in a virtual classroom assembly with his individual understudies and the educator online (Ananthasayanam et al., 2009). To deliver the framework more adaptability and advantage understudies who are incapable to go to course frequently, schools can too make arrangements for it. The learner can too interface with other experts and broaden her information. Since the globe has ended up a worldwide town, understudies who utilize this strategy will be on level with their partners anyplace within the world and will moreover pick up multicultural involvement.

Online assessment: Which provides rapid feedback and is based on readiness principles, is essential for learning since it inspires learners. Online evaluation aids in improving the formative, transparent, and speed of the evaluation process (Joshi et al., 2020). It becomes more trustworthy and unbiased.

E- tuitions: Understudies at e-tuitions have different requests. Few understudies advantage from classroom instruction since they require steady one-on-one bolster and unified consideration. Such understudies may select the e-tuition choice, which involves assembly a private mentor and getting personalized learning through video conferencing online (Stewart, 2004).

Educational Vlogs: In a typical classroom setting, students don't have much time to express their creativity due to their busy schedules, workloads, and exams. But with educational vlogs, they can express their ideas and get some constructive feedback. Plus, they can talk about important topics that aren't usually covered in the curriculum, like social issues, politics, and other things that affect young people, like drug use, crime, and education.

Webinar: One aspect of blended learning that leverages technology is the webinar. This involves students attending online seminars on topics that are pertinent to them. Participants use various computer software such as Skype or Google Talk, and interact with each other through video conferencing to present their papers and engage in discussions.

YouTube Learning: Mixed learning gives understudies with the capacity to get valuable bits of knowledge from the course material's information. This is often made doable by straightforward get to a shifted choice of addresses by best specialists from numerous regions, which are effortlessly open on YouTube. Moreover, schools may distribute recordings of their claim professors' addresses so that understudies who are incapable to go to their specific colleges can still advantage from the teachers' instruction.

Online Learning: Online audio and video learning is accessible, with a choice of recordings and animated animations that simply and engagingly convey a variety of subjects (Amini et al., 2022). Studying in an experiential manner allows students to gain practical exposure, facilitating their comprehension of complex ideas and phenomena.

Virtual Laboratories: Virtual laboratories are an excellent tool for professional courses that place a high emphasis on laboratory work. In many cases, the cost of establishing well-equipped laboratories is prohibitively expensive, and

certain experiments may pose safety risks that make it unsafe for students to handle the necessary equipment and materials.

Blended learning refers to the combination of all these features in one framework.

III. MAJOR FEATURES OF BLENDED LEARNING

The major features of Blended Learning are listed as follows-

Students can choose between two modes: Blended learning scholars have the choice to select either a conventional teaching space approach that involves communication with their peers and teacher, or an information and communication technology (ICT) supported teaching method. The choice is mainly dependent on the subject matter and the desired learning outcomes(Graham, 2013). Sometimes course designers or teachers choose the appropriate mode for the topic at hand.

Students engage in both face-to-face and virtual interactions: There are numerous chances for students to engage in discussions with their classmates who are enrolled in the same course. These interactions can take place both in-person on campus or online. This exchange of ideas amongst a diverse group of individuals enables students to broaden their knowledge and gain a deeper appreciation for other cultures and nations, ultimately fostering empathy, camaraderie, and a sense of global unity.

All round expansion of nature is targeted: Blended learning is a way of teaching that allows students to develop their personalities in all their dimensions, from the cognitive to the physical to the emotional. Traditional methods or ICT alone can't do this. With blended learning, students can learn more from online experiences, which helps them develop higher-level thinking skills. Plus, social media and other social media sites help students become more tech-savvy. On the other hand, traditional classroom learning helps kids remember and understand things better, which helps with cognitive domain development. Kids' emotional and physical development is affected by a mix of things, like how their teachers act, how they interact with other kids, and how they interact with their peers.

Teachers are proficient in both types of instruction: One essential element in blended learning environments is the high level of enthusiasm, technological expertise, and effective training among teachers, enabling them to excel in both traditional classroom settings and ICT-supported formats.

They will be skilled at utilizing both conventional techniques and cutting-edge technology (Jeffrey et al., 2014).

Students gain extensive exposure to and fresh viewpoints on the content knowledge: Students are exposed to a wide range of experiences, which enriches their knowledge of the subject matter and allows them to perceive different perspectives on it.

It has humanity: through the presence of the teacher and traditional teaching methods, students get the human, interactive guidance that is essential for secondary-level achievement and balanced growth of the student's emotional intelligence.

Makes the learning and teaching process student-centered: The purpose of blended learning is to achieve student-centered education by giving pupils the most benefit possible.

It offers a multicultural and multidimensional approach to the teaching and learning process: The approach of blended learning offers students the opportunity to engage with their peers from different parts of the globe, enabling them to express their thoughts and emotions. This enriches the teaching and learning process, providing a diverse and multicultural experience (Olivier, 2011). It also includes an interdisciplinary and multidimensional element (Pachisia, 2022).

IV. PRECONDITION OF BLENDED LEARNING

Mixed learning can be difficult to implement and requires several important steps related to teaching, learning, content design and structure. Here are the steps you need to take to successfully implement blended learning

Teachers who have received appropriate training: Student-centric teachers are a key component of blended learning (Jonker et al., 2020). Instructors should be highly certified and competent to mix traditional and technology methodologies, and well-versed in the idea of blended learning. It is important to educate teachers on how to produce digital materials that can be easily accessed by their students on the internet. To achieve this, teachers must have a good grasp of internet terminology, usage and be familiar with various online resources that can aid their students in their

learning journey. It is also vital that teachers acquire knowledge on how to use platforms such as blogs, YouTube, video conferencing tools like Skype and Google Talk, and social media for educational purposes.

Complete amenities including a computer lab with comfortable furniture, internet access, and video chatting capabilities: Blended learning necessitates certain conditions to be met, and infrastructure is a key component of it. For this reason, educational institutions must not only ensure that their classrooms are up to par, but they must also have computer labs that are well-equipped and have sufficient computers to accommodate all students in a single session. In addition, it is beneficial to have internet access and, ideally, a campus-wide Wi-Fi network.

Students have internet connectivity through their personal computers: Students require basic hardware support at home to facilitate both online and offline learning, in addition to having access to a fully ICT-friendly campus. This necessitates the government's positive attitude and good investment schemes.

Parents fully aware and agreed: For the parents to support their children's transition to blended learning and be ready for it, they should be made fully aware of this novel teaching strategy. Only then will they be able to accept that their children will benefit from this departure from the traditional norm in terms of education.

Formative and continuous internal evaluation: To facilitate effective evaluation in blended learning, educational institutions and governing bodies must prioritize the adoption of formative assessment tools like continuous internal assessment (CIA), as summative evaluation may not be feasible. To make the system more flexible, the online examination should be included.

These are a few fundamental prerequisites and essentials without which blended learning cannot be properly implemented. Let us take a closer look at some of the innumerable advantages of Blended Learning.

V. ADVANTAGE OF BLENDED LEARNING

Blended Learning offers several benefits, including:

Information and Communication Technology (ICT) plays a crucial role in enhancing the learning experience for students and teachers alike, both in online and offline modes. This enables them to utilize their time in the classroom more effectively, engaging in activities that encourage collaboration and creativity.

Online learning and Computer-Aided Instruction (CAI) provide advantages to students while still maintaining the important human and social aspects of traditional teaching methods.

The use of blended learning provides more opportunities for communication, allowing for the completion of the communication cycle, which is not possible with traditional teaching methods alone.

One of the benefits of education is that it enhances students' technological literacy and proficiency in digital skills (Mann, 2009).

The competency of students is significantly improved through the development of self-motivation, self-responsibility, and discipline, which are valuable qualities they acquire.

The course material is updated, providing a renewed beginning for previously taught courses (Vaughan, 2010).

VI. THE POSITION OF BLENDED CULTURE IN REPUBLIC OF INDIA

India's education system is facing a lot of issues, like not being able to provide free and compulsory education to all kids, not being able to keep up with quality and quantity, not having a curriculum that keeps up with global market trends while still keeping Indian values, not having enough committed teachers, and not having enough effective teachers. To fix all these issues, India needs to take some big steps and make some big changes. One way to do this is to use blended learning.

Blended learning provides a solution to the issue of unequal access to education. With its implementation, the range of educational opportunities can be expanded, and a greater number of students can be reached. This is particularly important given the significant population in our country

and the limitations of the traditional school system. By utilizing blended learning, we can ensure that all students have access to quality education regardless of their location or circumstances (Dey & Bandyopadhyay, 2019).

To ensure students are equipped for the fast-paced and ever-changing job market, the educational system must keep up with the advancements in technology and science. As these fields are dynamic and constantly evolving, it is crucial that educational content is regularly updated to reflect the latest developments. In India, courses don't get changed very

often, which can lead to students falling behind. But if you switch to blended learning, it's easy for teachers and students to stay up to date with the latest trends and learn new skills.

Another significant problem is the lack of qualified teachers. Although there are fewer teachers, many elementary schools still do not have an adequate teacher-to-pupil ratio. This issue is present not just in the public sector but also in private institutions. Another big problem is that working teachers aren't all that committed to their jobs, thus blended learning is a viable alternative since online education may take the place of teachers.

The education of everyone remains a significant challenge. The Constitution demands that all children up to the age of 14 get free and compulsory education, yet our system is unable to achieve this objective as well.

Despite having an education, many students face difficulties finding employment as they lack the necessary skills required by the global job market. However, as previously stated, incorporating blended learning into education can equip students with both theoretical and practical knowledge, enabling them to keep pace with current methodologies and real-life demands.

Another significant problem is the quality of education, particularly in higher education (Vyas, 2021). Due to the lack of our higher education institutions' presence in the global ranking of top universities, it would be a prudent decision to embrace blended learning as a means of maintaining competitiveness and enhancing the quality of education. Students' knowledge will be enriched when they experience both kinds of modalities. Our students will acquire advanced skills through access to online experts

and materials that will make them competitive candidates for high-paying employment. The limitations of the methodology or syllabus design will undoubtedly be overcome by these exposures.

Mixed learning combines traditional classroom teaching with modern methods to help kids understand the basics of Indian culture. Unfortunately, the current education system isn't teaching students the right values and respect for Indian traditions, since it's too tech-savvy.

VII. BLENDED LEARNING IMPLEMENTATION IN THE INDIAN EDUCATIONAL SYSTEM

Blended learning must have the full support of educational authorities and institution administration. It calls for a properly considered plan that takes into account everyone from the very top to the very lowest of the educational hierarchy. In order to make educational institutions ready for blended learning, we will need to increase educational spending. Working with NGOs, the commercial and industrial sectors, and these groups will help achieve this. Since they stand to benefit the most if graduates from these educational institutions are well prepared for the global job market, these sectors may be driven to give financial support for the integration of blended learning. They may be used to promote the right mentality for blended learning adoption and raise knowledge of its benefits. There's no doubt that using the media for this is acceptable. Both in-service and pre-service teacher training programmes need to undergo a fundamental change in order to prepare instructors for a blended learning environment. To guarantee that educators have the information and abilities needed to successfully use a blended learning approach, the present programmes must be changed. This change is essential to ensuring that teachers are well-equipped to handle the evolving requirements of today's students. To sum up, it may be argued that blended learning is, in part, a reaction to problems with our educational system. If our educational system is implemented in a well-thought-out, methodical way with the right mentality, its future may be ensured. If blended learning is quickly implemented, everyone will benefit from it.

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