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Blended Learning: A Revolutionary Approach to Education

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ABSTRACT

Blended learning is an instructional methodology that combines face-to-face classroom methods with computer-mediated activities, integrating synchronous and asynchronous learning tools. It requires both students and teachers to be physically located in the same space, but digital tools can be used by students to control learning speed. Blended learning allows students to learn at their own pace and ability level, allowing them to access education from anywhere, anytime. This flexible approach allows for learning to occur in various formats, such as long periods, bits and pieces, from home, coffee shops, or during lunch breaks. This paper discusses the concept of Blended Learning, its features, and the prerequisites for its implementation.

$\label{lem:composition} Keywords: Blended \ Learning, \ Education, \ Classroom, \ Technology \ etc. \\ \textbf{1.0 INTRODUCTION}$

The world is changing constantly and the various domains are also influenced by the change. There is no exemption even in the education domain. The evolution of digital learning platforms had a huge impact on educational institutions and has eventually put traditional methods in the back seat. However, there are demands for both technology and traditional learning methods. As a result of this, the art of combining digital learning tools with more traditional classroom face-to-face teaching gave birth to the term "Blended Learning".

1.1 What is Blended Learning?

The simplest definition of the term blended learning is the use of traditional classroom teaching methods together with the use of online learning for the same students studying the same content in the same course. It is a "thoughtful fusion of face-to-face and online learning experiences" (Garrison & Vaughan, 2008). There are also blended programmes, in which students study some courses in face-to-face classrooms and other courses are delivered fully online. In other words, blended learning is a term applied to the practice of providing instruction and learning experiences through some combination of both face-to-face and technology-mediated learning. During the technology-mediated components of these learning experiences, students are not required to be physically together in one place but may be connected digitally through online communities. For example, one blended learning course could involve students attending a class taught by a teacher in a traditional classroom setting while also completing online components of the course independently, outside of the classroom, on an online learning platform.



Classroom instruction time may be replaced or augmented by online learning experiences, and online learning can include varying degrees of interaction or just time alone in independent study and learning activities. However, in a quality blended learning experience, the content and activities of both in-person and online learning are integrated and work toward the same learning outcomes with the same content. The various learning experiences are synthesised, complement each other, and are planned or orchestrated to run in parallel. Blended learning is sometimes called hybrid or mixed-mode learning. These systems of instructional design use many types of teaching and learning experiences and vary in design and implementation across teachers, programmes, and schools. The potential variations of

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- In one school, a few teachers create mixed-mode delivery in their classrooms. In another, a whole programme chooses to make blended learning its choice of delivery for all students; all teachers work together to learn how to teach in a blended delivery system.
- Video recorded lectures, live video and other digitally enabled learning opportunities can be a student's primary instructional interactions with other students and the teacher. In some cases, students may work independently on online lessons, projects and assignments at home or elsewhere, only periodically meeting with teachers to review their learning progress, discuss their work, ask questions or receive assistance with difficult concepts. In other cases, students may spend their entire day in a traditional school building, but they will spend more time working online and independently than they do receiving instruction from a teacher

The important features of Blended Learning are:

- Increased student engagement in learning.
- Enhanced teacher and student interaction.
- Responsibility for learning.
- Time management and flexibility
- Improved student learning outcomes
- Enhanced institutional reputation.
- More flexible teaching and learning environment
- More amenable to self and continuous learning
- Better opportunities for experiential learning

1.2 Prerequisite of Blended Learning

Implementing blended teaching is not an easy task. It requires certain fundamental preparations in all the elements of the teaching-learning process- teacher, student, content designing, and infrastructure. The following are the basic requirements for implementing successful blended learning.

- Trained Teachers- Teachers play a crucial role in blended learning, blending traditional and technological approaches. They should be knowledgeable about internet browsing, internet terminology, and websites useful for online learning. Teachers should be skilled in developing digital content, using blogs, YouTube, video conferencing software, and social networking sites for educational purposes. They should also be familiar with internet terminology and internet terminology.
- Teachers with a scientific attitude- teachers must have a scientific attitude. They should have good observation skills, they should be optimistic should have problem-solving skills. A scientific attitude will help the teacher to deal positively with failures she will encounter while working on this innovative concept and will help to analyse the conditions objectively. This right type of scientific temper will automatically filter from teachers to students
- Teachers with a wider outlook and positive approach towards change as it is a must for the success of any innovative idea or method of blended learning process also need teachers that have a wider outlook and should be flexible, they should be ready to accept the changes and very innovative and dynamic.
- Complete facilities like a well-furnished computer lab, internet connection, and provision for video chatting- it is the compulsory factor of blended learning. Blended learning largely depends on infrastructure, school should not only have good classrooms but should also have well-furnished computing laboratories with a sufficient number of computers to cater to all the students of one class and the internet facility, a Wi-Fi campus if possible.
- Students have access to the internet at their private computers- in addition to the school having a fully ICT-friendly campus students should have basic hardware

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International Advance Journal of Engineering, Science and Management (IAJESM) ISSN -2393-8048, January-June 2019, Submitted in June 2019, iajesm2014@gmail.com support to learn online and offline at their residence. This requires a positive attitude and good investment schemes from the government.

- **Flexibility in the system** The system should be flexible, flexible timetable table, and examinations system all this is very crucial for implementing blended learning.
- Fully aware and agreed Parents- the parents should be made well aware of this innovative approach to teaching so that they are ready for it and support their wards for blended learning and can accept that this deviation from traditional teaching is beneficial for their children
- Formative evaluation and continuous internal assessment- the school authorities and higher educational bodies should be ready to completely implement continuous internal assessment (CAI) and other tools of formative evaluation as summative evaluation is not supported in blended learning. The provision should be made for online examination to make the system more flexible. These are a few essentials and basic requirements without which blended learning cannot be executed successfully.

2.0 Technologies for Blended Learning:

The following are some of the Technological tools useful in blended learning. These tools are effectively used in teaching and learning objectives of students in higher education.

2.1 Learning Management Systems:

Learning management systems (LMS) are essential tools in blended learning environments, enabling the delivery of online content, collaboration, and administrative functions like registration, assessment, and analytics. LMSs come from various vendors, including Blackboard, Desire2Learn, Moodle, and Canvas. They are typically implemented at a school, institution, or district level and require infrastructure and technical support. Webbased classroom management systems like Google Classroom can be initiated by individual teachers, while subscription-based LMSs are used for workplace training. LMSs can be criticized for emphasizing student management and passive transmission of instruction, but they can provide a platform for deeper, constructivist-based communities of inquiry through discussion boards, chat, and collaborative workspaces. They can also increase student and teacher workload, but it is crucial to consider activities within the LMS as integral components of the overall course structure. LMSs are key to developing blended learning by integrating multiple technologies into one platform.

2.2 Web Conferencing:

Web conferencing is a versatile tool that can be used in blended learning to replace traditional classroom-based activities like tutorials and seminars. It can be used for one-to-many presentations, webinars, private tutorials, or innovative assessment sessions. These tools are multimodal, offering simultaneous video, voice, text chat, whiteboard annotations, and screen sharing, making them dynamic and complex learning environments. Powerful tools like Adobe Connect, Blackboard Collaborate, and Zoom are typically offered as hosted web services with subscriptions, while low-cost alternatives like Skype and Big Blue Button can be implemented by individual teachers. However, challenges include accessibility, complexity, and capacity. Web conferencing requires learners to log in at scheduled times, which may limit flexibility. It also requires stable, high-bandwidth Internet connections, making it less accessible for some learners or locations. While its multimodal capabilities can be stimulating, they can be complex and overwhelming, necessitating training sessions and ongoing technical support. Capacity limitations, such as the number of simultaneous users or minutes per month, must be considered when planning a blended learning program.

2.3 Digital Textbooks

Digital textbooks offer numerous benefits over printed ones, including lower costs, improved accessibility, flexibility, customization, and richer learning experiences. They are essential for educational reform and are available through commercial publishers and open-source initiatives. Open-source texts are often of equal or higher quality and can be shared freely. However, the development and adaptation of digital texts can be costly and burden students with the responsibility of providing their own devices. Despite these challenges,

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International Advance Journal of Engineering, Science and Management (IAJESM) ISSN -2393-8048, January-June 2019, Submitted in June 2019, iajesm2014@gmail.com digital textbooks are expected to become a key educational technology in online and blended learning.

2.4 Blogs and Wikis

Blogs and wikis are online writing tools used in blended learning for individual, reflective writing and collaborative research and writing activities. Blogs are shared online diaries, allowing learners to write about their learning experiences and receive feedback. Wikis are collaborative writing spaces built around interlinked web pages, allowing learners to create or edit pages at any time. Common activities include brainstorming, group essays, and class planning. However, wikis are complex and non-intuitive, making them challenging for novice users. Blogs and wikis are often available within Learning Management Systems (LMSs) or can be created through commercial or non-profit services like Blogger, EduBlogs, or WordPress.

2.5 Social Bookmarking, Mashups and Digital Storytelling:

Social bookmarking involves collecting, tagging, and sharing online resources like articles, news reports, or images. In blended learning, these activities can support critical discussions about the reliability of web-based information. Mashups allow learners to compile, combine, and remix online resources and data in structured ways, such as knowledge mapping or data visualization. Digital storytelling, an extension of mashups, combines various media to create a unified narrative. This can be used for individual exploration, collaborative learning, and higher learning skills. Blended learning can effectively combine digital storytelling with in-person presentations at various educational levels.

2.6 E-portfolios:

Electronic portfolios are collections of writing, documents, and artefacts maintained by students to demonstrate their learning over a course or program. They are not just for assessment or showcasing skills but also play a developmental role of encouraging learners to reflect on their work and evaluate it objectively. They can be integrated into Learning Management Systems (LMSs) or software or web-based applications, making them valuable additions to any learning environment.

3.0 The advantages of blended learning

It includes increased learning skills, greater access to information, improved satisfaction and learning outcomes, and opportunities both to learn with others and to teach others. Recent research identifies the following key benefits of blended learning:

- 1. Opportunity for collaboration at a distance: Individual students work together virtually in an intellectual endeavour as a learning practice.
- 2. Increased flexibility: Technology-enabled learning allows for learning anytime and anywhere, letting students learn without the barriers of time and location but with the possible support of in-person engagement.
- 3. Increased interaction: Blended learning offers a platform to facilitate greater interactivity between students, as well as between students and teachers.
- 4. Enhanced learning: Additional types of learning activities improve engagement and can help students achieve higher and more meaningful levels of learning.
- 5. Learning to be virtual citizens: Learners practice the ability to project themselves socially and academically in an online community of inquiry. Digital learning skills are becoming essential to be a lifelong learner, and blended courses help learners master the skills for using a variety of technologies.

4.0 Implementation of Blended Learning in the Indian Education System

Blended learning requires a comprehensive approach from educational authorities and institute management, involving individuals from all levels of the educational hierarchy. To prepare educational institutes for blended learning, increased budgets can be achieved through NGOs and collaboration with the industrial and corporate sectors. These sectors will benefit from more efficient global market output.

Developing the right attitudes towards blended learning is crucial for all stakeholders in the educational system. Awareness programs, seminars, and discussion forums can help

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change attitudes and prepare people for its implementation. Mass media can also be used for this purpose. Teacher training programs should be reoriented to prepare teachers for blended learning.

Financial and effort should be directed towards preparing primary schools for blended learning. This approach can address multiple problems simultaneously and maximize the use of both finance and efforts. In conclusion, blended learning is a potential solution to existing educational system problems if implemented well and organized. It is essential to initiate steps for adapting blended learning for the benefit of all involved.

CONCLUSION:

Blended learning is a pedagogical approach that combines traditional classroom instruction with online elements to address the diverse needs and challenges of the Indian education system. It incorporates technology such as PowerPoint, interactive whiteboards, virtual communication tools, social networking software, e-learning systems, and mobile learning, enhancing student interest and engagement. Blended learning bridges the gap between remote areas and those facing physical constraints, promoting personalized learning experiences and fostering a deeper understanding of subjects. It prepares students for the 21st-century workforce by equipping them with digital literacy and the ability to navigate online resources, enhancing their employability and transitioning into the digital economy. Blended learning also addresses teacher shortages in certain regions by reaching a wider audience through online resources and virtual classrooms, improving the overall quality of education, and contributing to the decentralization of educational resources. In conclusion, blended learning in India is a beacon of innovation and adaptability in the educational landscape, empowering students with flexibility, digital literacy, and access to quality education.

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