EDUCATIONAL TECHNOLOGY AND ICT

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Lecture-07

Module-7: Blended Learning

Hello, dear learners, welcome to the course on Educational Technology and ICT. I am Dr. Sarita Anand from the Department of Education, Vinaya Bhavana, Visva-Bharati, Santiniketan, West Bengal. Today, our topic is Blended Learning. Before discussing blended learning, we will review the concepts covered. Earlier, we covered the concept of PSI, the Personalized System of Instruction. Here, the concept, meaning, definition, nature, characteristics, key elements, and steps were covered. Also, the advantages and limitations of PSI were discussed.

Today, we will talk about blended learning. Blended learning, also known as hybrid learning, represents a transformative approach to education that integrates traditional face-to-face teaching methods with online and digital learning experiences. This is the mode of learning in which a student learns, at least in part, through online learning, with some elements of student control over time, place, path, and/or pace.

This model combines the strengths of both physical and virtual learning environments to create a more flexible engaging, and personalized educational experience for the learner. One of the key benefits of blended learning is the ability to personalize instruction.

By engaging in a variety of activities such as online discussions, simulations, and project-based learning, students develop problem-solving and communication skills. This personalized approach fosters a deeper understanding of the subject matter. and enhances student motivation. By combining both words, face-to-face and online instruction, this model provides a flexible, personalized, and interactive learning experience. As technology continues to evolve, blended learning is poised to become an innovative and important part of education.

Now, the concept and meaning of blended learning. It involves the purposeful combination of in-person instruction with online learning activities. Unlike purely online courses or traditional classroom-based instruction, blended learning offers a middle ground, providing students with the opportunity to engage with the content both in a physical classroom and through digital platforms. This model emphasizes learner autonomy. allowing students to control aspects of their learning such as pace, time, and location, while still benefiting from direct instruction with instructors, peers, and teachers.

So, in practice, blended learning can take various forms, including flipped classrooms, rotation models, or self-paced courses that combine classroom sessions with online modules. The primary goal of this approach is to enhance learning outcomes by combining the best practices of both traditional and digital methods. Now, we will see about the origin and history. The roots of blended learning can be traced back to the rise of distance education in the late 19th and early 20th centuries.

The initial form of distance learning involved correspondence courses delivered via postal mail, enabling students in remote areas to access educational opportunities. Over time, advancements in communication technologies such as radio and television expanded the scope of distance education by introducing audio-visual elements into the learning process. The emergence of the internet in the late 20th century marked a turning point in the evolution of blended learning.

The introduction of learning management systems in the 1990s, such as Blackboard and Moodle, enabled educators to create and distribute digital learning content, track student progress, and facilitate online discussions. This technological leap paved the way for the integration of online components into traditional classrooms, giving rise to the blended learning model as we know it today.

The early 2020s saw a surge in the adoption of blended learning across educational institutions worldwide. Schools, colleges, and universities began recognizing the potential of the model to address diverse learning needs, enhance engagement, and optimize resource utilization. The COVID-19 pandemic in 2020 further accelerated the adoption of blended learning as educators and institutions were compelled to pivot to online platforms while maintaining some elements of face-to-face interactions where possible.

Now, we will talk about the different types of blended learning. Basically, blended learning is the blend of online and offline learning. Here, it is a versatile educational model that combines traditional in-person instruction with teachers and online learning activities. This

flexibility allows for various approaches tailored to meet the needs of diverse learners and teaching contexts. Below are the primary types of blended learning-

The first one is the Face-to-Face Driver Model. In this model, traditional in-person instruction remains the primary mode of teaching, with online resources and activities supplementing classroom learning. Teachers may use online tools to assign homework, provide additional resources, and expand learning outside the classroom. For example, a teacher conducts regular lectures but assigns students to complete quizzes or review lessons through a learning management system like Google Classroom.

This model is suitable for schools with limited technology infrastructure or where students require significant guidance. The next type of blended learning is the Online Driver Model. Here, the majority of instruction occurs online, and face-to-face instruction is minimal or optional. Students can access materials, complete assignments, and communicate with instructors through online platforms. Examples include an online course where students meet in person only for final assessments or practical sessions where we can use It is ideal for adult learners, working professionals, or geographically dispersed students.

The third type is rotation model where students rotate between different learning modalities including online learning, small group instructions and independent study. This approach ensures the balanced mix of learning experiences. There are sub types of this rotation model. The first one is station rotation. Students move between different stations in a classroom such as teacher's station, an online learning station and an independent work station.

It depends on the institution how they are organizing it. The next one is lab rotation. Students alternate between classroom instruction and online learning in a dedicated computer lab. The next one is flipped classroom. Students review online materials at home and engage hands on activities or discussion in the classroom.

Where we can use it? It is effective for fostering engagement and catering to different learning styles. The fourth one is self blended model. In this model students choose to supplement their traditional classroom education with additional online courses or resources by their own.

It offers greater flexibility and autonomy to the students. For example, a high school student attends regular classes but enrolls in an online advanced placement course for a specific subject like biology. It is useful for motivated learners seeking to explore subjects

beyond the standard curriculum. It is useful for motivated learners seeking to explore subjects beyond the standard curriculum, especially for those who are preparing for competitive examinations.

The next one is the flex model: Instruction is primarily delivered online in this flex model. But teachers are available in person to provide support and guidance as needed. Students progress at their own pace with teachers acting as facilitators. For example, a school where students complete lessons online at their own pace and meet teachers for one-on-one assistance whenever they require. It is ideal for personalized learning environments or remedial education. Whenever they need, they meet the teachers.

The sixth one is the Enriched Virtual Model. This model divides students' time between online learning and scheduled face-to-face sessions. Unlike the flex model, online learning, In-person instructions are less frequent and more structured. The sixth one is enriched virtual model. Students divide their time between the online learning and scheduled face-to-face sessions. Unlike the flex model, in-person interactions are less frequent and more structured. Example is, a university course where the students attend in-person workshops once a month while completing the majority of coursework online.

Use: suitable for learners who prefer occasional in-person interaction but value the flexibility of online education. The next one is project-based blended learning. This approach integrates online resources with in-person collaboration for completing Students use digital tools to research, create and present projects while in person sessions focus on teamwork and mentoring.

For example, a group of a student collaborating on a science project using online research, tools and meeting periodically for discussion and where we can use? It is used for effective for fostering critical thinking, creativity and teamwork. The next one is gamified blended learning. This model incorporates gamification elements into both online and in-person learning. It to increase the engagement and motivation.

For example, a course that includes online quizzes with leaderboards in-class competitions. To reinforce concepts like Kahoot, small children love it. The leaderboard they like, and the use is particularly engaging for younger learners teaching complex abstract concepts. Now, we will talk about the advantages, which we already know, but anyhow, we will talk about the advantages of blended learning. It offers several benefits like flexibility, Students can learn at their own pace, accessing online resources at their convenient time.

Personalization. The combination of online and in-person learning allows educators to tailor instruction to individual needs. Engagement. Interactive online tools and multimedia content can make learning more engaging and dynamic. Resource optimization.

Institutions can maximize the use of physical and digital resources. Accessibility. Learners from diverse geographical locations can access high-quality education without the need to relocate because it costs money. Now, the limitations. However, implementing blended learning requires careful planning and consideration.

Teachers need to be equipped with the necessary technological skills and pedagogical knowledge to effectively design and deliver blended learning experiences. Moreover, access to technology and reliable internet connectivity is crucial for all students to participate fully in the learning process. Thus, we can say that while blended learning has numerous advantages, it is not without challenges and limitations. These include the digital divide. Unequal access to technology and the internet can hinder participation.

Instructor preparedness: educators need adequate training to design and deliver effective blended learning experiences. Student motivation: learners may struggle with self-discipline. Learners may struggle with self-discipline. Student motivation. Learners may struggle with self-discipline in the absence of direct supervision.

The cost. Initial investment in technology, infrastructure, and digital content creation can be significant. It takes lots of money, time, and other resources. Now, the future of blended learning. Yes, as educational technology continues to evolve, blended learning is poised to become an integral part of the educational system worldwide.

Emerging technologies such as artificial intelligence, virtual realities, augmented reality are likely to further enhance the effectiveness and appeal of this model. Institutions must continue to address challenges related to accessibility, quality and equity to ensure the benefits of blended learning are realized by all learners. So, at present times, blended learning represents a powerful educational model that combines the strength of traditional and digital methodologies. Its origin in distance education and subsequent evolution highlights its adaptability and relevance in addressing the needs of modern learners.

By embracing blended learning, educators can create more inclusive, engaging and effective learning experiences, preparing students to success in an increasingly interconnected and technology-driven world. Now the matter comes that how to integrate individualized learning with the blended learning. So, individualized learning is a

pedagogical approach that focuses on modifying instruction to meet the unique needs of abilities and interest of each student. Each approach recognizes that the student learns at different paces and in different ways and it aims to provide them to support and resources they need to succeed.

Individualized learning recognizes that each student has unique learning styles, pace and interest. By adapting instruction to individual needs, educators can foster a deeper understanding of the subject matter and improve student achievement. Whereas blended learning, on the other hand, seamlessly blends face-to-face instruction with online learning activities, providing learners with flexibility and choice. To implement this integration approach, educators first access each student's needs and strengths. Based on their assessment, they create personalized learning pathways to outline specific goals, activities, and resources.

Blended learning environments provide learners with the flexibility to access learning materials, complete assignments, and collaborate with their peers at their own pace. Now question comes that how it works? This integration how works? So, the first one is- needs assessment. Educators utilize various assessment tools to identify each learner's strengths, weakness, learning style and preferred learning pace.

Then go to the personalized learning pathway. Based on these assessment data, educators create customized learning pathways for each learner outlining specific goal and activities and resources. After that, flexible learning environment should be created. Blended learning environment provides learners with the flexibility to access learning materials, complete assignments and collaborate with the peers at their own pace in a variety of settings. Then comes the technology integration.

Technology tools such as learning management systems, LMS, adaptive learning platforms and interactive simulations are employed to deliver personalized instruction, track students' progress and facilitate communication between learners and the educators. Then comes the teacher-student collaboration. Teachers play a crucial role in guiding and supporting learners, providing timely feedback and addressing individual questions and challenges. They foster a collaborative learning environment where learners can work independently in small groups or with the teachers.

Now, the benefits of this integration between individualized learning and the blended mode of learning. The benefit is enhanced student engagement. Personalized learning and a

flexible learning environment cater to individual interests and learning styles, leading to increased engagement and motivation.

Improved student outcomes: Tailored instructions and timely feedback help learners achieve better learning outcomes and mastery of the subject matter. Next, increased student autonomy. Learners have greater control over their learning process, fostering self-directed learning and responsibility. Efficient use of time. Blended learning allows for efficient use of instructional time, as learners can work independently on certain activities while educators provide targeted support to those who need it and data-driven instruction.

Technology tools enable educators to track student progress and adjust instruction accordingly, leading to data-driven decision-making. This data-driven instruction provides feedback to the teachers about the learning level of the learners. Now, we can conclude that by integrating individualized learning with blended learning, educators can create dynamic and effective learning environments that empower learners to reach their full potential. This approach has the potential to revolutionize education by providing personalized, flexible, and engaging learning experiences for all. These are the references for your further studies. You can go through the provided references.

Thank you.