



**ORIGINAL RESEARCH PAPER**

**Education**

**PEDAGOGICAL PERSPECTIVES OF BLENDED LEARNING**

**KEY WORDS:** Conceptual Framework, Blended Learning Models, Strategies and Tools, Methodological and Pedagogical Perspectives

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**ABSTRACT**

Blended learning is one of many terms that have surfaced into the vocabulary of educators since the integration and convergence of computers, teaching, and learning. It is used interchangeably with hybrid learning, flexible learning, open distance learning, and mixed-mode learning. Blended learning refers that combines face to face traditional classroom teaching with online learning and reduced classroom or teacher contact. The introduction of learning-oriented systems and their accompanying technologies, such as electronic performance support system tools and knowledge management systems or portals penetrating the field of higher education. These complimentary technology-based approaches, which are directed to improving human performance are very much part of the e-learning mix today, for it would hard to distinguish where formal training interventions leave off and where performance support activities pick up, and surely these approaches fit within the context of knowledge creation and transfer processes.

**Introduction**

Times are changing for higher education with the de-emphasis on thinking about delivering instruction and the concurrent emphasis on producing learning and expanding education using technology-mediated learning. A shift towards a developmental, learner-centered, and activity bases approach to learning and teaching has identified the introduction of e-learning as one of the objectives of curriculum renewal. The XIIth Five Year Plan focuses on e-education has stated that the introduction of e-learning in education represents an important part of the Government's strategy to improve the quality of teaching and learning across the higher education and training system. The intention of the Plan is not just to build technical skills but to extend and enrich educational experiences across the curriculum. The higher education policy promulgates that e-learning will require teachers and learners to reflect upon and improve their approaches and strategies to teaching and learning. The efficient use of learning methodologies has the potential to enhance the quality and value of assessment.

According to Mangal (2010), e-learning situations are of three types. They are support learning, blended learning, and complete e-learning. Support learning plays a mere supporting role in the teaching-learning activities organized in the classroom, e.g., use of multimedia for teaching and learning to enhance classroom activities. In blended learning mode, attempts are made for making use of a combination of traditional and ICT enhanced e-learning practices. Thus, one can harvest the benefits of both the practices of traditional and e-learning. In the mode of complete e-learning, the learners are free to take their learning tasks independently with the help of the properly designed e-learning courses, carried out entirely online.

**Blended Learning: A Conceptual Framework**

Blended learning as described by De Zure (2002), refers to courses that combine face-to-face classroom instruction with online learning. Blended learning involves a shift away from the pure classroom interaction, lecture-style mode of instruction to a more student-centered style. The present education system calls for learner-centered education and in keeping with this requirement, blended learning is most appropriate. This is so because students are not active and interactive and are directly involved in their learning, thus making learning more meaningful for them (Buckley, 2002). As cited by Poon, J (2013), according to Littlejohn and Pegler (2007) defined Blended Learning as 'useful approach because it changes the focus of learning design by shifting the emphasis from simply considering the face-to-face and online environments to the design of issues, such as

considering the process and synergy of blending between online and face-to-face environments. Therefore, blended learning is itself a blend. It is a mix of pedagogical approaches that combines the effectiveness and the socialization opportunities of the classroom with the technological enhancements of online learning (Dziuban, Hartman, Juge, Moskal, & Sorg, 2006). Thus, the blended learning approach must be student-centered and uses a selection process that,

- Combining or mixing web-based technology to accomplish an educational goal
- Combining pedagogical approaches (e.g., constructivism, behaviorism, cognitivism) to produce an optimal learning outcome with or without instructional technology
- Combining any form of instructional technology with face-to-face instructor-led training and
- Combining instructional technology with actual job tasks.

Blended learning represents a new approach and mix of classroom and online activities consistent with the goals of specific outcomes and behavioral changes. According to Garrison, D.R. & Vaughan, N.D, the key assumptions of a blended learning design are;

- Thoughtfully integrating face-to-face and online learning.
- A fundament rethinking the course design to optimize student engagement
- Restructuring and replacing traditional class contact hours.

**Blended Learning Approach**

An integrative blended learning approach is driven by learning objectives, performance support, and knowledge management. Such a model affords a powerful and cost-effective continuous learning solution that combines the following elements:

- Learning: whether it is a classroom, workplace, or web-based and delivered in a 'live', 'just in time', or self-paced mode.
- Performance support: whether it takes the form of job-specific, context-sensitive, or embedded systems that serves as job aids.
- Knowledge Management: whether it is manifest in expertise directories, lesson-based databases, best practices repositories, and communities of practice that all reflect and deliver knowledge to learners at a particular time of need.



Figure 1: Integrative Blended Learning Approach Model

**Blended Learning Models**

The majority of blended-learning programs resemble one of four models: Rotation, Flex, A La Carte, and Enriched Virtual. The Rotation model includes four sub-models: Station Rotation, Lab Rotation, Flipped Classroom, and Individual Rotation.

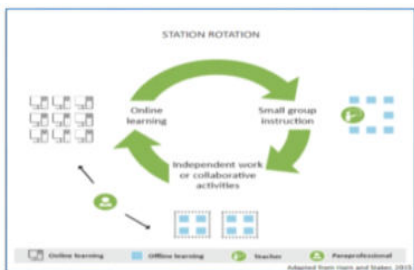
**A. Rotation Model**

A course or subject in which students rotate on a fixed schedule or at the teacher's discretion between learning modalities, at least one of which is online learning. Other modalities might include activities such as small-group or full class instruction, group projects, individual tutoring, and paper and pencil assignments. The students learn mostly on the brick-and-mortar campus, except for any homework assignments.



**Station Rotation Model**

A course or subject in which students' experience the Rotation model within a contained classroom or group of classrooms. The Station rotation model differs from the Individual rotation model because students rotate through all of the stations, not only those on their custom schedules.



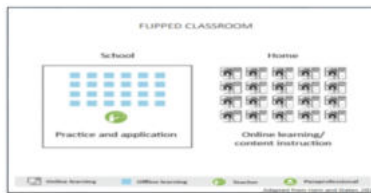
**Lab Rotation Model**

A course or subject in which students rotate to a computer lab for the online-learning station.



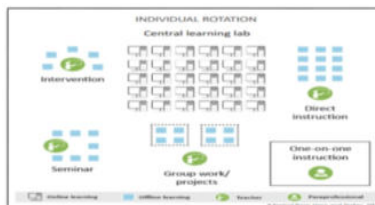
**Flipped Classroom**

A course or subject in which students participate in online learning off-site in place of traditional homework and then attend the brick-and-mortar school for face-to-face, teacher-guided practice or projects. The primary delivery of content and instruction is online, which differentiates a Flipped Classroom from students who are merely doing homework practice online at night.



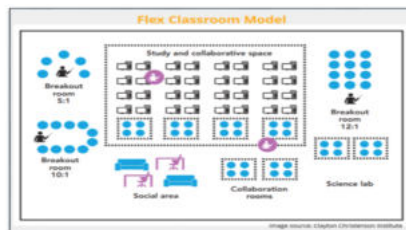
**Individual Rotation**

A course or subject in which each student has an individualized playlist and does not necessarily rotate to each available station or modality. An algorithm or teacher(s) sets individual student schedules.



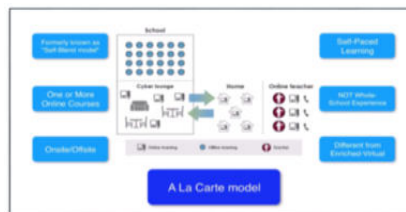
**B. Flex Model**

A course or subject in which online learning the backbone of student is learning, even if it directs students to offline activities at times. Students move on an individually customized, fluid schedule among learning modalities. The teacher of record is on-site, and students learn mostly on the brick-and-mortar campus, except for any homework assignments. The teacher of record or other adults provide face-to-face support on a flexible and adaptive as-needed basis through activities such as small group instruction, group projects, and individual tutoring. Some implementations have substantial face-to-face support, whereas others have minimal support.



**C. A La Carte Model**

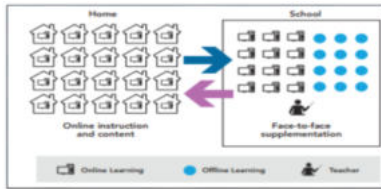
A course that a student takes entirely online to accompany other experiences that the student is having at a brick-and-mortar school or learning center. The teacher of record for the A la Carte course is the online teacher. Students may take the A La Carte course either on the brick-and-mortar campus or off-site. This differs from full-time online learning because it is not a whole-school experience. Students take some courses A La Carte and others face-to-face at a brick-and-mortar campus.



**D. Enriched Virtual Model**

A course or subject in which students have required face-to-face learning sessions with their teacher of record and then are free to complete their remaining coursework remote from the face-to-face teacher. Online learning is the backbone of student learning when the students are located remotely. The same person generally serves as both the online and face-to-face teacher. Many enriched virtual programs began as full-time online schools and then developed blended programs to

provide students with brick-and-mortar school experiences. The enriched virtual model differs from the flipped classroom because in enriched virtual programs, students seldom meet face-to-face with their teachers every weekday. It differs from a fully online course because face-to-face learning sessions are more than optional office hours or social events; they are required.



**Blended Learning: Strategies and Tools**

Blended learning is a new instructional strategy, based on the non-linear and interactive features of digital learning and instruction through the web. Therefore, this instructional strategy, based on an adaptive learning environment to be integrated into web-based instruction in the teaching-learning process. The introduction of an adaptive and interactive source of learning means that instructors may spend less time presenting the knowledge to groups of students and more time facilitating small group work and guiding students to appropriate resources of the curriculum. This involves a change in all instructional practices and delivery of web-based and blended learning. According to National Research Council (NRC), as cited by Abdelaziz, H. A (2012), blended learning instructional strategy consisted of four basic components. They are,

- Knowledge-centred, wherein the emphasis is on understanding rather than remembering
- Learner-centred, wherein individual learners' personal and cultural backgrounds and learning styles are valued
- Community-centred, wherein learning activities are collaborative and foster a community of practice and inquiry that involves legitimate peripheral participation
- Assessment-centred, wherein formative assessment is used to make students' thinking visible to them, and evaluations are performance-oriented.

Thus, the blended learning instructional design offers a framework for planning, developing, and evaluating instructions based on the learner's needs, content requirements, and delivery methods.

Following categories of knowledge management tools that support blended learning:

- Content portal technologies
- Collaborative filtering techniques
- Search engines and text retrieval
- Directory technologies and expertise locators
- Virtual synchronous classrooms
- Digital content asset management systems
- Web-based content management systems
- Electronic document management systems
- Digital library technology
- Knowledge map software

**Methodological Perspectives of Blended Learning**

Constructivist perspectives were adopted as a theoretical framework for blended learning instructional strategy (Abdelaziz, H.A, 2012). Constructivism has a substantial impact on views about conditions and instructional strategies essential to build and organize learner's knowledge. Connectivism has considerable views regarding how to contribute, delve and support other people learning. As the World Wide Web (WWW) and the Internet have become the common tools for instruction in the digital age, the blended learning environment is providing creative solutions to qualify and quantify learning through the following strategies

(Horton,2008).

- Increasing knowledge- by making it more accessible to people.
- Capturing knowledge- by making it easier for people to record what they know.
- Refining knowledge- so it is expressed in a way that's useful to others.
- Sharing knowledge- which involves making knowledge accessible.
- Applying knowledge-that is action on the messages in the content, and
- Pedagogical assumptions.

With the rapid growth in computer technology and multimedia, instructions should be designed in a way that makes them subject to a sequence of quick try-out and revision cycles (Abdelaziz,H. A, 2012). So, the instruction should be a self-regulated process taking place through the learner who is motivated to explore problems and situations. For students to learn through the web as a constructivist learning environment, the learning environment should be shifted to a learner-centered rather than teacher-centered environment. Students and teachers must enter into a collaboration or partnership with technology and multimedia to create a virtual community that supports the learning process. Thus, computer technology and multimedia help in developing multiple perspectives through the learner's exposure to multiple points of view or resources.

**Pedagogical Perspectives of Blended Learning**

To engage learners in knowledge construction, facilitate tests for their understanding, and prompt reflection on the knowledge generation process, constructivists and connectivists recommend the creation and use of a web-based and blended learning environment. According to Driscoll (2002) as cited by Abdelaziz, H. A (2012), such learning environment should:

- Engage learners in activities authentic in the discipline in which they are learning,
- Provide for collaboration and the opportunity to engage multiple perspectives on what is being learned,
- To support learners in setting their goals and regulating their learning, and
- Encourage learners to reflect on what and how they are learning.

To achieve this, the blended learning instructional model makes use of systematic development of instruction, which is composed of seven stages: analysis, design, development, implementation, execution, and evaluation (Boitshwarelo, 2009). Underlying this process is an emphasis on content structure, cognitive processes, and collaborative activities. Content structure, which is determined by the different information types and performance goals. Cognitive processes, with a focus on factors that can enhance cognitive activity such as using visual formats to improve perception. Collaborative activities, which are characterized by the co-participation in activities and the facilitating role of the instructor.

**Benefits and Challenges for Blended Learning**  
**Benefits of Blended Learning**

Blended learning benefits students and institutions. It facilitates improved learning outcomes, access flexibility, a sense of community, the effective use of resources, and student satisfaction. It offers inviting opportunities for students to learn, re-learn and have life while learning. The benefits of blended learning reported in a research study by Dhakiria, H (2012), offers the following advantages;

Blended learning can be made student sensitive. The design must consider the student's profile and background for a better learning outcome. Students must be made part of the

learning resource and material to optimize learning opportunities. It tackles the student-centered paradigm. The learning culture shifted from a teacher-centered approach to a student-centered one must be sustained and improved. Blended learning offers a convergence of face-to-face teaching with technology and maximizes learning. The classroom segment uses role-plays, case studies, and other discovery learning procedures that explore higher-order thinking about real-life issues and situations. It is more effective than the traditional way of teaching.

Blended learning whether it's seen as a technology, practice, or discipline can easily become a bedrock component of e-learning. It is useful for students learning in the following ways:

- Blended learning motivates to learn more.
- Blended learning, increase the level of independence in the learning process. It assists to acquire a deeper understanding of basic concepts and procedures.
- Hyperlinks to websites provide additional learning materials that are readily available.
- Through blended knowledge, learning get immediate feedback on an online assessment.
- Blended learning allows more interaction with the lecturer than in face-to-face sessions.
- Blended learning promotes online discussions with other students.
- Blended learning made learning more convenient and access the classroom in our own time.

**Challenges for Blended Learning**

The use of blended learning can pose challenges for students and universities. Unrealistic expectations and feelings of isolation are challenges for students, while universities are challenged by time and support issues. Both students and institutions encounter challenges presented by technology issues (Poon, 2013). Vaughan (2007) cites studies suggesting that students enrolled in blended courses can sometimes have unrealistic expectations. The students in those studies assumed that fewer classes meant less work, had inadequate time management skills, and experienced problems with accepting responsibility for personal learning. Students in such courses have also reported feeling isolated due to the reduced opportunities for social interaction in a face-to-face classroom environment. The challenges associated with blended learning are;

- Unrealistic student expectations
- Student-perceived isolation
- Technological problems for students
- Time commitment
- Technological problems for institutions
- Lack of support for course redesign
- Difficulty in acquiring new teaching and technology skills.

**Conclusion**

The impact of e-learning in the learning environment made tremendous potentialities and it could revolutionize learning and development, and at present evolved into a concept of Blended learning. Blended learning is the most logical and natural evolution of our learning agenda. It suggests an elegant solution to the challenges of traditional learning and development to the needs of individuals. Blended learning instructional strategy provides a sustainable approach that reduces some of the cost of complex curriculum development and improves the sustainability of curriculum innovation. It represents an opportunity to integrate the innovative and technological advances offered by online learning with the interaction and participation offered in the traditional classroom setting. As a result of the study, the blend itself will focus on optimizing the mix of classroom instruction with online learning, and performance support tools that can

maximize the total impact on students learning experiences in the Indian context also.

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