

REPOSITIONING NIGERIA EDUCATION THROUGH BLENDED LEARNING: A CONCEPTUAL AND POLICY PERSPECTIVE

By

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Abstract

Blended learning (or hybrid learning), referred to as technology-mediated instruction, web enhanced training, or mixed-mode instruction, is a method of teaching. It blends traditional classroom approaches with online learning resources and online interaction opportunities. The paper discusses the concept of blended learning, its main features and prerequisite of its implementation. Scope of blended learning in Nigeria educational system is also discussed. The paper also tries to explain how blended learning is an approach that needs to be adopted. Blended learning is an innovative concept that embraces the advantages of both traditional teaching in the classroom and ICT supported learning including both offline learning and online learning. It has scope for collaborative learning; constructive learning and computer assisted learning (CAI). Blended learning needs rigorous efforts, right attitude, handsome budget and highly motivated teachers and students for its successful implementation. As it incorporates diverse modes so it is complex and organizing, it is a difficult task. The study concluded that if blended learning is implemented in a well-planned, organized way with right type of attitudes it can become the future of our educational system. It was recommended that an awareness programmes, seminars, discussion forums should be organized and also Teacher training programmes both in-service and pre-service have to be reoriented to prepare teachers for blended learning approach.

Keywords: *Blended Learning, ICT Supported Teaching Learning Process, Traditional Teaching Learning Process, and Computer Assisted Learning, Online Learning*

Introduction

In the developing world and particularly, Nigeria, research has documented the inadequate nature of learning infrastructures such as physical facilities, electricity, internet facilities and so on. Meanwhile, research has also shown that learners who experienced technology-mediated learning are able to control their learning pace and hence are able to learn better and retain more contents. Equipment required for such technological-mediated learning are usually inadequately available at best and are sometimes unavailable. Hence a need arises to blend the technology mediated learning, when available, with the traditional tutor-led classroom interaction.

The educational system at present is in a transition stage. To meet the challenges of expansion and for catering individuals need it is trying to adopt new technologies and exploring new paths to reach the goal of quality educational opportunities for all, at the same time due to various factors like deficient budgets, lack of facilities, advantages of face to face interaction, it is not completely ready to leave the traditional modes of knowledge transfer. Even the students are in a state of dual mind. When a group of teacher trainees were inquired about the mode of teaching they will prefer from traditional classroom teaching and ICT supported teaching the students were nearly evenly divided between both the choices.

The traditional mode of teaching in spite of its few shortcomings provides a much needed human touch to the teaching learning process. Personality and behaviour of the teachers directly influences the blooming personality of the students. Only face to face interaction meets the affective objectives along with cognitive and psychomotor. Face to face traditional approach helps in developing a strong value system. Social skills like cooperation, sharing, expression and respecting other's views are more easily developed in traditional mode of teaching. Students learn not only from books, or from teachers teaching inside classroom but also from the co-students, through their peer group interaction, they learn many skills in playground and their small social interactions in canteens, lounge etc. All this is necessary for a proper personality development

As discussed above that traditional approach has its own benefits but it is not free from deficiencies. It has following shortcomings:

- It is failing to meet the individual needs of all the students in the class basically due to improper pupil teacher ratio
- It is not adapting itself to meet the challenge of teaching physically challenged students
- Teachers are not trained for integrated classroom.
- School is not able to reach every child and so education for all is still a far sighted goal
- Children from deprived groups, from the areas that are geographically isolated and medically unfit students are not able to gain benefit from this formal traditional mode of teaching.

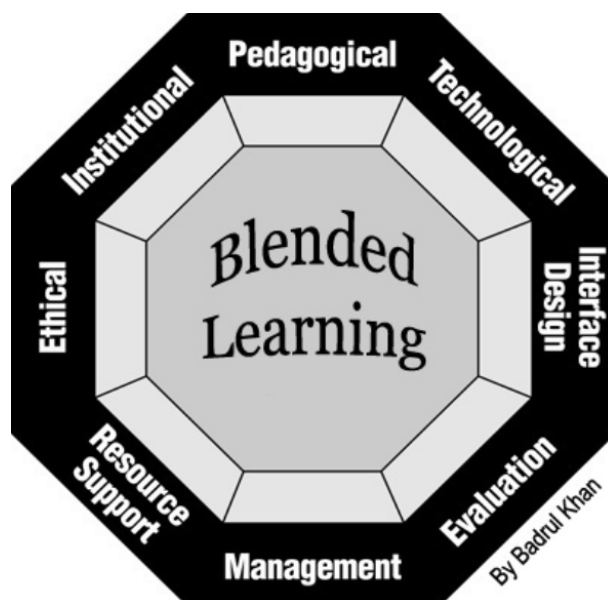
To make their knowledge correlate with the present technological advancement and globalization, to minimize the teaching errors, to improve the quality, to increase students exposure ICT supported teaching learning process is a good option. ICT supported teaching provides new dimension to teaching learning process, introduces students to the wide pool of knowledge and opens before them innumerable opportunities to learn , unlearn and relearn ,All types of learners whether in- service, physically challenged all can be benefitted by this mode of teaching . It helps reaching to all students. In the words of Swami Vivekanand “*if people cannot reach school, schools should reach them*”, ICT supported learning is exactly doing the same.

Analysis of both the traditional mode of teaching learning process and ICT supported teaching learning process show that both have few merits and demerits, both are catering different needs, demands and expectations from the educational system, so the solution is to provide and design such a system that is based on an integrated approach, a system that incorporates the main features of both traditional approach of teaching and ICT supported teaching. The demand of today is an approach that blends the advantages of both the modes for the student's learning i.e. blended learning.

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Concept of Blended Learning

Blended learning offers a promising solution to the challenges posed by traditional teaching methods. By combining face-to-face instruction with online learning, blended learning allows for greater flexibility, individualized instruction, and the use of diverse educational resources. Research shows that blended learning can enhance students' engagement, improve retention of knowledge, and support personalized learning pathways (Murtala et al, 2021). It combines multiple delivery media that are designed to complement each other and promote learning and application-learned behaviour. This may include several forms of learning tools, such as real-time virtual/ collaboration software, self-paced Web-based courses, electronic performance support systems (EPSS) embedded within the job-task environment, and knowledge management systems. Blended learning may also mix various event-based activities, including face-to-face classrooms, live e-learning, and self-paced learning. It may also be a mix of traditional instructor-led training; synchronous online conferencing or training, asynchronous self-paced study, and structured on-the-job training from an experienced worker or mentor.



According to the Badrul Khan's frame work, a variety of factors are required to be addressed to create a meaningful learning environment. Many of these factors are interrelated and interdependent. A systemic understanding of these factors can enable designers to create meaningful distributed learning environments as comprised in the Octagonal Framework. The framework has eight dimensions: institutional, pedagogical, technological, interface design, evaluation, management, resource support, and ethical.

1. **Institutional:** The Institutional dimension addresses issues concerning organizational, administrative, academic affairs, and student services. Personnel involved in the planning of a learning program could ask questions related to the preparedness of the organization, availability of content and infrastructure, and learners' needs. Such questions may include:
 - a. Can the organization manage offering each learner the learning delivery mode independently as well as in a blended program?
 - b. Has the needs analysis been performed in order to understand all learners' needs?
2. **Pedagogical:** The Pedagogical dimension is concerned with the combination of content that has to be delivered (content analysis), the learner needs (audience analysis), and learning objectives (goal analysis). The pedagogical dimension also encompasses the design and strategy aspect of e-learning. This dimension addresses a scenario where all learning goals in a given program are listed and then the most appropriate delivery method is chosen.
3. **Technological:** Once we have identified the delivery methods that are going to be part of the blend, the technology issues need to be addressed. Such issues include creating a learning environment and the tools to deliver the learning program. This dimension addresses the need for the most suitable learning management system (LMS) that would manage multiple delivery types and a learning content management system (LCMS) that catalogs the actual content (online content modules) for the learning program. Technical requirements, such as the server that supports the learning program, access to the server, bandwidth and accessibility, security, and other hardware, software, and infrastructure issues are addressed.
4. **Interface Design:** The Interface Design dimension addresses factors related to the user interface of each element in the blended learning program. One needs to ensure that the user interface supports all the elements of the blend. The interface has to be sophisticated enough to integrate the different elements of the blend. This will enable the learner to use each delivery type and switch between the different types. The usability of the user interface will need to be analyzed. Issues like content structure, navigation, graphics, and help also can be addressed in this dimension. For example, in a higher education course, students may study online and then attend a lecture with the teacher. The blended learning course should allow students to assimilate both the online learning and the lecture equally well.
5. **Evaluation:** The Evaluation dimension is concerned with the usability of a blended learning program. The program should have the capability to evaluate how effective a learning program has been as well as evaluating the performance of each learner. In a blended learning program, the appropriate evaluation method should be used for each delivery type.
6. **Management:** The Management dimension deals with issues related to the management of a blended learning program, such as infrastructure and logistics to manage multiple delivery types. The management dimension also addresses issues like registration and notification, and scheduling of the different elements of the blend.
7. **Resource Support:** The Resource Support dimension deals with making different types of resources (offline and online) available for learners as well as organizing them. Resource support could also be a counsellor/tutor always available in person, via e-mail, or on a chat system.

8. **Ethical:** The Ethical dimension identifies the ethical issues that need to be addressed when developing a blended learning program. Issues such as equal opportunity, cultural diversity, and nationality should be addressed.

A more comprehensive definition was given by Procter (2003) as the effective combination of different modes of delivery, models of teaching and styles of learning. The Distance and E-learning Unit of the University of London (DEU) (2009) stated that blended learning sometimes referred to as 'hybrid learning', is an approach that seeks to take the advantages of different tools and methods and employ them in one organized programme. It often refers to a mix of traditional face-to-face delivery with asynchronous self-paced learning (delivered over an ICT system). Though it could refer to any blend of approaches (for example, a blend of self-paced learning with collaborative projects).

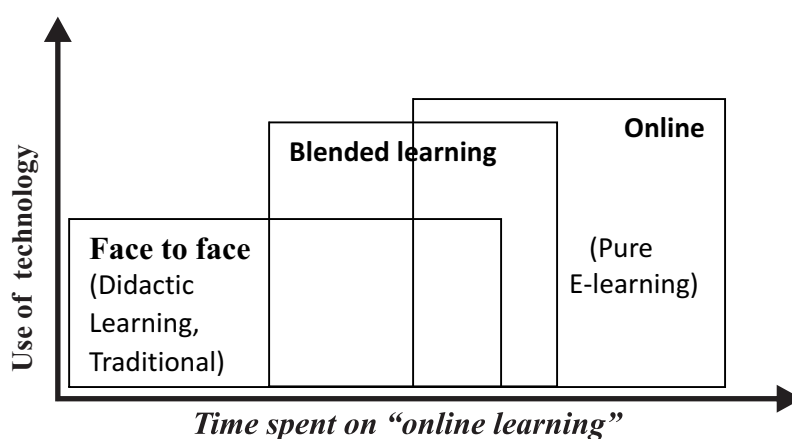


Figure 1. Conception of Blended Learning as adapted from Heinze and Procter (2004)

In Figure 1 above Heinze and Procter (2004) visualised blended learning as defined above. There are overlaps between the pure face to face sessions, which use some kind of online activities, and the “pure” online learning, which combines some kind of face-to-face event. It is an innovative teaching method to combine the conventional classroom and technology use where students are actively engaged (Josephine and Marie,2021). Formal learning is the traditional, preparatory approach in which learning takes precedence over all other activities. In this wise, formal learning is frequently the blended learning taking place in classrooms, on computer screens and via other technologies. Whatever the delivery method, formal learning requires the learner to be exclusively engaged in learning for the duration of the course or module.

By contrast, informal learning takes place anywhere and everywhere except in a formal setting. It might be learning via an instant message exchange, a conversation with a subject-matter expert during a collaboration on a specific project, a colleague's referral to “the guy who knows all about that” down the hall or many other informal interactions that take place throughout the workday. While formal learning provides a foundation of known skills, values and processes, informal learning helps to harness innovation and meet organizational challenges. Informal learning disseminates knowledge through an organization more quickly than formal learning, which typically requires the creation of structured content.

Furthermore, Informal learning is essentially individualized learning because all learners can choose — or find — their own way to transform a moment in the workday into a learning experience. Indeed, as formal learning processes and infrastructures mature, and the nature of work continues to evolve, informal learning becomes increasingly important in the blended learning mix.

In modern learning paradigms, blending involves a planned combination of approaches, such as coaching by a supervisor; participation in an online class such as breakfast with colleagues; competency descriptions; reading on the beach; reference to a manual; collegial relationships; and participation in seminars, workshops, and online communities (Rosset, Douglis and Frazee, 2003; Zhang, 2008). DEU (2009) asserted that if blended learning is implemented effectively, it can alleviate immediate educational pressures and problems, increase the flexibility of taught programmes, attract and retain student interest in a programme, widen access and participation, and enhance the quality of offered courses. Also, Rosset, Douglis and Frazee (2003) quoted a 2002 Harvard Business School research that found that students not only learned more when online sessions were added to traditional courses, but student interaction and satisfaction improved as well. DEU (2009) concluded that effective blended learning is more likely to lead to effective distance learning, and the two are likely to share tools, platforms and resources. DEU (2009) reported a research finding that for every pound spent on e-learning, £4 is still spent on traditional training.

According to Care Academy (2006) blended learning approach may combine one or more of the following learning categories/dimensions, although many of these have over-lapping attributes:

1. **Offline and Online (formal learning)** - At the simplest level, a blended learning experience combines, offline and online forms of learning where the online learning usually means “over the Internet or intranet,” and offline learning happens in a more traditional training. Some of the developments and learning take place through Instructor-led Classrooms, Hands-on Labs & Workshops, visits to similar organizations' IT department, eMeetings, Virtual Classrooms, Web Seminars and Broadcasts, and Coaching.
2. **Self-Paced and Live, Collaborative (informal learning)** - Self-paced learning implies solitary, on-demand learning at a pace that is managed or controlled by the learner. Collaborative learning on the other hand implies a more dynamic communication among many learners that brings about knowledge sharing. Some of the examples could be learning through documents & web pages, group discussions, web/computer-based training, reading magazines, recorded live events, online learning communities, discussion forums, attending brown-bags and knowledge sharing.
3. **Unstructured Learning** - Not all forms of learning imply a pre-meditated, structured or formal learning program with organized contents. Most of the unstructured learning takes place through meetings, discussions, e-mail, reading magazines and networking with other organizations departments.
4. **Work and Learning** - Ultimately, the true success and effectiveness of learning in IT department is believed to be associated with the paradigm where work (such as architecture designing and implementing) and learning are inseparable, and where learning is embedded in regular business processes and practices. Work becomes a source of critical learning content that can be shared with others.

The table below presents the possibilities of what can constitute a blended learning approach:

<p>Live face-to-face (formal)</p> <ul style="list-style-type: none"> • Instructor-led classroom • Workshops • Coaching/mentoring • On-the-job (OTJ) training 	<p>Live face-to-face (informal)</p> <ul style="list-style-type: none"> • Collegial connections • Work teams • Role modeling
<p>Virtual collaboration/synchronous</p> <ul style="list-style-type: none"> • Live e-learning classes • E-mentoring 	<p>Virtual collaboration/asynchronous</p> <ul style="list-style-type: none"> • Email • Online bulletin boards • List server • Online communities
<p>Self-paced learning</p> <ul style="list-style-type: none"> • Web learning modules • Online resource links • Simulations • Scenarios • Video and audio CD/DVDs • Online self-assessments • Workbooks 	<p>Performance support</p> <ul style="list-style-type: none"> • Help systems • Print job aids • Knowledge databases • Documentation • Performance/decision support tools

Dzakiria, Mustafa and Abu Bakar (2006) warned that this array of definitions may not, be in itself, helpful as the various interpretations mean that almost anything can be seen as blended learning, and consequently, its use can be misinterpreted

Finding an effective 'blend' of approaches and tools is the issue.

Possible options to be considered include the stability of the content against the time allowed to implement the course. If the course will run for a short period and there is also a short development period; then emails, discussion boards and online links might be the most effective tools. If the course is regularly changing and there is a long development time; then live classrooms and archived discussion boards are worth considering.

Other considerations are the level of human interaction and staffing, against the budget constraints of the project. For example high budgets but low levels of staff-student contact time would suggest the production of simulations and image databases. Low budget and high contact time might suggest that discussion forums and online chat-rooms are used. The effectiveness of informal face-to-face learning should also be considered. The discussions carried over lunches with other students, and similar are often very valuable. These discussions, and the peer groups they generate, can be difficult to formalize in a programme of study, but are often more difficult to promote on a purely online model. Some distance

learning courses try to blend face-to-face workshops or an informal social meeting into the course to try and overcome this difficulty.

Hoffman listed some of the technologies that may be integrated into a blended learning endeavor to include:

- traditional classroom or lab settings
- reading assignments
- CD-ROM
- performance support tools
- teletraining
- stand-alone Web-based training
- asynchronous Web-based training
- synchronous Web-based training

Hoffman gave a set of procedural steps that need to be used in operationalizing blended learning sessions as follows:

1. **Tech checks:** The first step in the learning process would be to download the required software and the plug-in. Next, learners need to test the software plug-ins for functionality. Technical support assistance should be made available at this point.
2. **Learning How to Learn Online program.** Usually, the first part of a synchronous program is spent teaching first-time learners the point-and-click classroom's system and features which may consist of introductions, tools overview, ground rules, and tips for creating an effective learning environment. It also focused on the curriculum's blended qualities and explained policies for using the asynchronous module, such as attendance and participation.
3. **Participant guides.** Although participant guides are often absent in Web-based training, a well-designed participant guide can be a critical success factor for synchronous programs.
4. **Asynchronous Web modules.** Asynchronous modules present content that's essential to the learning process and can be accessed at a learner's individual pace. The asynchronous features should offer additional information on key concepts, examples, interactive exercises, and assessments.
5. **Live, instructor-led events.** Synchronous events are keys to effective learning designs because they give learners the opportunity to ask questions, interact with peers, and practice skills in a more realistic environment.
6. **Just-in-time tools.** To help facilitate lifelong learning, participants should be periodically directed back to the reinforcement tools in the asynchronous Web modules, including examples, refresher exercises, tip sheets, and so forth.

Advantages of Blended Learning

Blended learning has following advantages-

- As part of learning is done through ICT, online or offline mode so teachers and students get more time in the classroom for creative and cooperative exercise.
- Students gain advantage of online learning and CAI without losing social interaction element and human touch of traditional teaching'
- It provides more scope for communication. Communication cycle is completed in blended learning which is not possible if we follow only traditional approach
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- Students become more techno savvy and they gain enhanced digital fluency
- Students have more strengthened professionalism as they develop qualities like self-motivation, self-responsibility, discipline
- It updates course content and so gives new life to established courses

Conclusion

Nigeria educational system is suffering from various problems like failing to expand the system to provide provision of free and compulsory education to all children, Blended learning to some extent will help in solving these problems of Nigeria educational system. It can be said that blended learning is to some extent is the solution to problems prevailing in our educational system. If implemented in a well-planned, organized way with right type of attitudes it can become the future of our educational system. It is in our own benefit that steps for adapting blended learning are soon initiated.

Recommendations

Implementing blended learning needs a full dedication on the part of educational authorities and managements of educational institutes. Therefore this study proffer the following recommendations

- It needs a well-planned design that include all from individuals top to bottom of the educational hierarchy.
- For preparing educational institutes for blended learning we will need to increase educational budgets, it can be done by taking help of NGOs and also coordinating with the industrial and corporate sector. These sectors can be motivated to give their financial inputs for blended learning execution as these sectors will be most benefited if the output from these educational institutes are more efficiently groomed for the global market.
- The other very important issue that has to be considered is development of right type of attitudes towards this ground-breaking concept in all those who are concerned with educational system. For changes in attitudes of parents, community, teachers and students
- Awareness programmes, seminars, discussion forums should be organized. These can be utilized to make people aware about the benefits of blended learning so that a right mind set is prepared for its implementation. Mass media can well be utilized for this purpose.
- Teacher training programmes both in-service and pre-service have to be reoriented to prepare teachers for blended learning approach.
- The finance and efforts that are put in for various projects to meet education for all should be re directed in preparing our primary schools for blended learning as it will cater many problems simultaneously and both finance and efforts are more fruitfully utilized.

References

Arbaugh, J.B. (2005). How much does “subject matter” matter? A study of disciplinary effects in on-line MBA courses, *Academy of Management Learning & Education*, 4(1), pp. 57-73.

Bonk C.J., & Graham, C.R. (2006). *The handbook of blended learning environments: Global perspectives, local designs.*

- Care Academy (2006) IT staff development guide:Aspiring for excellence through learning and collective intelligence. Retrieved on 21st October 2009 from <http://www.careacademy.org/learningresources/docs/HQ-IT-Staff%20Development%20Guidelines.pdf>
- Dzakiria, H., Mustafa C & Abu Bakar, H (2006) Moving Forward with Blended Learning (BL) as a Pedagogical Alternative to Traditional Classroom Learning Malaysian Online Journal of Instructional Technology (MOJIT) Vol. 3, No.1, pp 11-18
- Heinze, A.; C. Procter (2004). "Reflections on the Use of Blended Learning". Education in a Changing Environment. University of Salford, Salford, Education Development Unit
- Josephine and Marie (2021). Improved pedagogical practices strengthens the performance of Student teachers by a blended learning approach Social Sciences & Humanities Open. <http://doi.org/10.1016/j.ssaho.2021.100199>
- Lalima & Kiran L.D. (2017). Blended learning: An innovative Approach. University Journal of Educational Research 5(1): 129-136, 2017
- Murtala, I. A., Musa, A. U., & Muhammad, J. (2021). Adoption and use of e-learning in Nigerian higher institutions for sustainable socio-economic development. ResearchGate. <https://www.researchgate.net>
- Procter, C., (2003) Blended Learning in Practice, In Inaugural Education in a Changing Environment conference University of Salford, Salford
- Rossett, A., Douglis, F. and Frazee, V.F. (2003) Strategies for Building Blended Learning. Learning Circuits. Retrieved 21st October, 2009 from <http://www.essentiallearning.net/news/Strategies%20for%20Building%20Blended%20Learning.pdf>
- Rossett, A. and Frazee, R. (2004). The Blended Learning Portfolio. Retrieved 20th October, 2009 from <http://www.allisonrossett.com/sdu/blends/index.htm>
- Singh, H. (2003) Building Effective Blended Learning Programs. Issue of Educational Technology, Volume 43, Number 6, Pages 51-54.