



BLENDED LEARNING PROGRAMME (BLP) – A NEW DIMENSIONAL IN EDUCATIONAL SYSTEM

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[1] ABSTRACT :

Human has been trying to understand the changes going around him and has been constantly receiving a great number of impressions through his various senses such as hearing, sight, smell, taste and touch. This systematic store of human understanding gained after generalizing and inter-relating facts is known as science. Science is very important to prepare and provide proper learning materials to student's and to actively them in learning process. Chemistry is the one of this part of science. Here as an alternative to traditional learning there is blended learning design integrated with higher order thinking skills (HOTS) is useful. Active engagement with course material is vital for learning. This is based on research that demonstrates how learning is not only more likely to occur but is more enriched (qualitatively better) when students go beyond the passive tasks of listening, reading or viewing. Active engagement can be facilitated through individual as well as collaborative activity as shown in above figure. In the present scenario, the whole education system is only exam oriented for student's and teacher's. Student's are not only receiver, that teacher throws and they catch.

According to bloom's taxonomy ..Lower to Higher-order thought and skill

Remembering

→Understanding

→Applying→Analysing→Evaluating→Creating

Blended learning is "A blend or mix of the approaches that can be used to design a learning experience". So, even though essentially "Learning is always blended" this concept means the use of technologies in learning through the integration of online and face to face modes. One of the major reasons of this approach gaining momentum is due to teachers and instructors not using online learning to completely replace traditional face to face classroom teaching, but to complement or overcome

some of the shortcomings of face to face teaching. Students should not get only information, they should have their own thinking, their own views about everything. **So, ‘blended learning programme’ is useful for higher achievers as well as medium and lower achievers.**

[2] ORIGIN OF BLENDED LEARNING :

Origin of Blended Learning:

Blended learning is not a new concept. It originates from corporate training and development in U.S.A and is believed to have made its first appearance in the late 1990s. Blended learning has become a buzzword and has grown increasingly in demand and popularity in both corporate and academic settings. It has been broadly researched across the globe in the educational circle over the past couple of years. As blended learning has been practiced across various disciplines at various levels of educational institutions and in various parts of the globe, little has been done in establishing a theoretical framework which is used to guide blended learning design and believe to be highly desirable to ensure effective blended learning.

[3] MEANING AND DEFINITION OF BLP

Meaning of Blended Learning:

Meaning of blended learning is that to a strategic and systematic approach to combining times and modes of learning. Blended learning can increase access and flexibility for learners, increase level of active learning and achieve better student experiences and outcomes. The meaning of blended learning widely diverged to encompass a wide variety of synthesis in learning methods until 2006, when the first handbook of blended learning by Bonk and Graham was published. In that Graham defined blended learning system as learning systems that combine face to face instruction with computer mediated instruction. Blended learning is embraced for promoting situated learning, which refers to learning in terms of activity and participation in a community of practice. As students observe their peers, reflect what they do, and practice apprenticeship, they develop habits, beliefs, identities, and skills that are shared by the community through interaction. Blended learning enables learners to learn in various ways possible, including problem-based and activity-based learning.

Definition of Blended Learning:

There has been much discussion over the term blended learning in recent years, yet there continues to be no agreed-upon single definition. (Green et al 2006)

1. Graham (2006) describes blended learning as the convergence of face to face setting, which are characterised by synchronous and human interaction, with information and communication technology (ICT) based setting, which are asynchronous, text based and involves humans operating independently.

2.Garrison and Kanuka(2004) stated that blended learning is the thoughtful integration of classroom face to face learning experiences with online learning experiences.

[4] CHARACTERISTIC OF BLP

There are following characteristics of blended learning approach from the above definitions.

- 1.combining pedagogical approaches (constructivism,behaviourism,cognitivism) or philosophies to produced an optimal learning outcome with or without instructional technology.
- 2.The combination of instructional technology with face to face learning with technology such as ICT ,e-learning,computer-mediated learning.
- 3.Thoughtful or systematic integration of varied learning style,model of delivery and teaching methods.

[5] DESIGING AND STEP OF BLP

Desiging of BLP

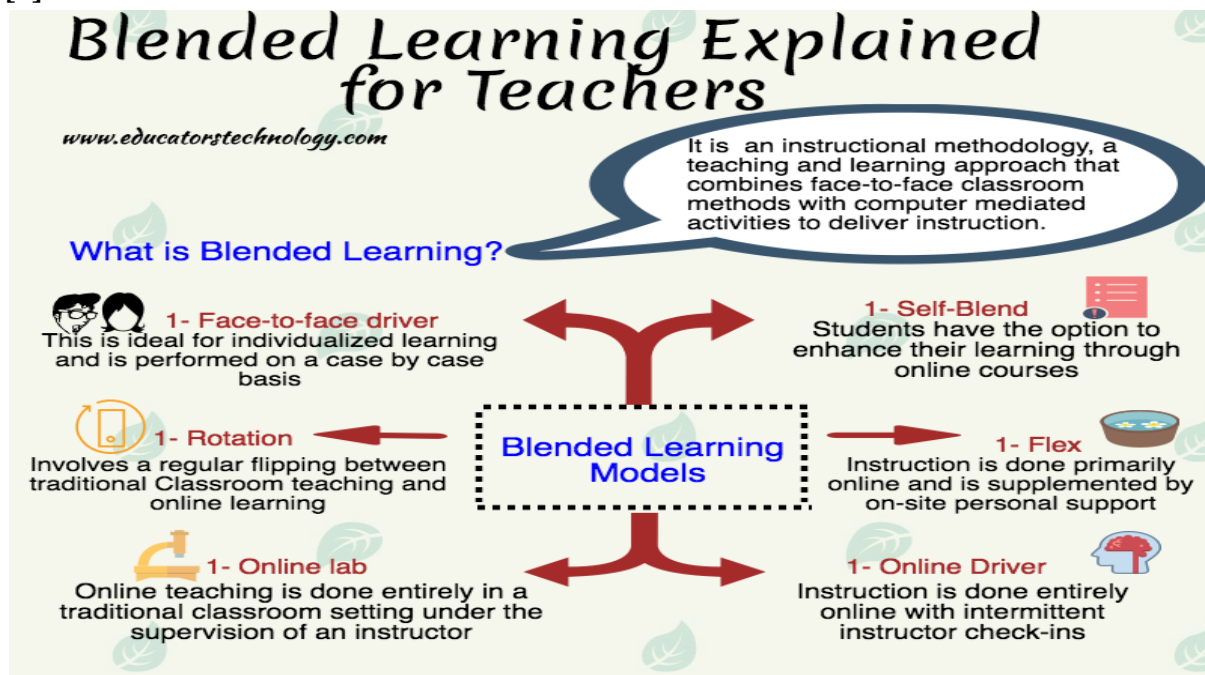
There are five step for desiging of BLP (1) Planning with aims (2) Designing with activities and assessment and developing (3) Implementing with BLP design (4) Evaluating with effectiveness of BLP (5) Making improvements for nexts time learning

Step pf BLP

Simply answer is in 8 – step (1) Planned in advance (2) All component of activity ready before starting (3)Achieving learning outcomes/assessment of units (4) Takes online / independent learning (5) Provided with clear guidenlines/expectation about what they do,where,withing time frame (6) Activity made clear to students (7)Students get feedback on there performance and (8) Activity is manageable by staff

Simply answer is in 6 – step according to bloom’s taxonomy (1) Creating such as generating new ideas,think etc. (2) Evaluating such as justifying a decision (3) Analysing such as explore understanding and relationships (4) Applying such as using information (5) Understanding such as explaining ideas/concepts (6) Remembering such as recalling informatioI :

[6] BLP-MODELS



Face-to-Face : Where the teacher drives the instruction and augments with digital tools.

Rotation : Students cycle through a schedule of independent online study and face-to-face classroom time .

Flex : most of the curriculum is delivered via a digital platform and teacher are available for face-to-face consultation and support.

Labs : All of the curriculum is delivered via a digital platform but in a consistent physical location. Student usually take traditional classes in this model as well.

Self-Bled : Students choose to augment their traditional learning with online course work.

Online Driver : Students complete an entire course through an online platform with possible teacher check-ins.All curriculum and teaching is delivered via a digital platform and face-to-face meetings are scheduled or made available if necessary.

[7] LEARNING AND TEACHING STRATEGIES :

- 1) Commentary and analysis
- 2) Supporting research projects
- 3) Learning journals
- 4) Learning communities
- 5) Resource sharing
- 6) Collaborative authoring
- 7) Blog journaling

[8] METHODOLOGY FOR CREATING A BLENDED LEARNING PROGRAMME

Blended learning, and e-learning for that matter, does not just happen by simply injecting some e-learning elements into a traditional course, or some e-learning courses into a traditional curriculum. There are several important issues in designing an effective blended learning program, both at the level of a course and a curriculum. Any methodology for creating a blended learning program must include three elements, as follows. 1. Setting the scope and objectives of the blended learning program. 2. An analysis of the relevant issues under the overall objectives set. 3. Addressing any problems identified in the analysis. 4. Measuring the results of the blended learning program.

The scope of a blended learning program, as already discussed, would normally be an entire curriculum or at least a number of courses. Appropriate objectives must be selected and used to guide the design and implementation of a blended learning program.

There are various potential objectives for implementing a blended learning program, as follows.

1. Increased learning effectiveness (for the students or employees), over either pure traditional classroom learning or pure e-learning.
2. Increased convenience (for the students or employees). In the case of corporations, blended the e-learning component of a blended learning program can make it easier for the employees when business trips or highpriority business meetings come up to prevent them from attending scheduled in-class training.
3. Enhanced image (for the school or the corporation). The progressive image may be projected both internally (to own students or employees) and externally (the general public, customers, the government, news media, the financial analysts, etc.).
4. Cost savings (for the school or the corporation). The cost savings may result from possibly reducing the number of instructors, and, in the case of corporations, having employees not use critical work hours for scheduled in-class training.
5. Classroom space savings (for the school or the corporation). The e-learning component of a blended learning program can help ease the classroom space needs by having students and employees learn more from outside the classrooms. The freed-up classroom space can potentially be used for other purposes.
6. Reduced traffic and parking congestion on the campus or the corporation.

Key issues to be carefully analyzed follow.

- **Cost issue:** To add the e-learning element into a traditional course or curriculum, equipment, hardware, networking and software are needed in general. There is the associated cost of installing, maintaining and upgrading them; possibly hiring and paying technical support staff; possibly adding administrative staff; training the staff and instructors; content development and upgrade, etc.

- **Management issue:** A decision must be made as to how much of the work should be done with in-house staff or outsourced to service organizations. This issue is closely related to the cost issue, and includes the following considerations. 1.

Purchase, installation, and management of the equipment, hardware, networking and software. 2. Selecting technologies to use. This has to do with setting and observing school-wide or corporation-wide standards on the equipment, hardware, networking, and software, so that there is overall consistency, relative ease of receiving services and volume discounts from the vendors, etc. 3. Hiring and training technical and administrative staff.

- **Selection of vendors:** Once it is decided to outsource some of the work and people needs, vendors must be selected. There needs to be a set of criteria for selecting the vendors, including cost estimations provided, strategic importance they attach to the work being outsourced, their capabilities and limitations, their financial stability, reputations from their existing customers, etc

- **Considerations of the students:** In designing the e-learning component of a blended learning program, the students' and employees' ability to access the e-learning contents must be taken into account. The access ability includes the computing power of the PCs they will use, the types of peripherals that come with the PCs, operating systems and their versions that run on the PCs, web browser versions they will use, Internet access bandwidth, availability or accessibility to video conferencing, etc. Course contents should not include parts that a lot of students and employees (accessing from their homes) cannot view or listen with the computers and Internet bandwidth available to them. Further, the students' and employees' special needs and situations that may affect the scheduling of face-to-face meetings or exams, the reaction to the contents of the course materials, etc. should be taken into account. These include religion, culture, national origin, physical handicap, etc. In particular, course contents should not include statements, illustrations, examples, etc. that may offend the students and employees.

- **Considerations of the classroom space:** Since the e-learning part of a blended learning program does not in general require the use of a Towards a Definition and Methodology for Blended Learning classroom, the classroom can be put to good use. Good scheduling of a blended program that consists of a number of courses in the same course period can yield a fair number of free classrooms on a regular basis during the course period. If the classroom space is at a premium, the freed-up classrooms can be quite helpful. • **Determination of the composition of learning types:** To make a blended learning program work best, both at the curriculum and course level, the best composition of the learning types must be determined. The determination of the best composition must be done on the basis of the precise definition of blended learning discussed earlier. Further, it must be done by considering all of the issues discussed above.

It is important that there be some pre-determined set of measures and a methodology for measuring the degree of success of the blended learning program. The measures would include actual costs incurred and actual benefits achieved. The benefits in turn would include all the objectives chosen for the blended learning program.

[9] CLASSROOM TEACHING ACTIVITIES LOGGING

In general, classroom activities include lectures, tutorial session, laboratory, project, review, questions and answers, open forum and presentation etc. Each course focuses in certain aspect of activities due to its syllabus requirements. To the students, they are mainly interested in two issues: how much do they learn and what is their grade for the course. If the lecturer can log these activities into a web site for student's reference, it will be easier for students to know the priority importance of each teaching activity as follows:

Lectures: - We can video record lectures for students to review them at home. However, this involves facilities management and operations. Many long distance education institutes provide such services for remote learning. Also, sometimes students complain about spending too much time copying the written notes from the blackboard. In this case, lecturer may consider storing the images of the written notes into the web site for students to download after the lecture. Furthermore, references can also be put into the web site for students to enhance their knowledge in the subject.

Tutorial sessions – Students come to tutorial sessions for small group learning. They can ask more questions in the sessions for peer-to-peer learning, with more in-depth discussion of the subject. An effective approach is for teachers assess the students' knowledge by giving tutorial exercises in the sessions. After marking the answers from students, the lecturers can discuss the answers with the students. Thus, the questions and answers are logged into the web site for students to review them. In this way, the students can learn even if the students are absent in the sessions.

Laboratory exercises – Students use laboratory for their hands-on exercises. However, they may not have enough time to finish them in the laboratory. An alternative is to do the exercises on the Internet at home. Sometimes, for long distance education institutes, they allow students access laboratory facilities through remote logging. Both techniques can serve the students well.

Open forum – It is important for students discuss questions about the lecture among themselves. An open forum in the classroom and in a web site can be very helpful. A BLOG system is good to log these open forum conversation. Students can refer them even though they were not involved at the beginning of the discussion. This open forum is managed by the lecturer just in case incorrect message or information is passed among students.

Mind set diagram – A course in general covers many subjects. It is important for students to know the learning sequence of these subjects. A mind set diagram of the course can help students realize the position of each subject in the course. In other words, how the subjects are related to each other. Students should also be allowed to put their comments in the subjects which are the syllabus of the course. A picture is worth thousands words. The diagram is very helpful for the students' understanding of the course.

Grading system – A computerized grading report system can assess students knowledge effectively and make them realize their understanding of the course

materials immediately. The lecturers post the students' grade of each assignment online along with the model answers so that the students can correct their mistakes at once. This will trigger students ask more questions in the class.

Project management – Lecturers act as project supervisors to student's projects. They define the project requirements and monitor student's progress through face-to-face interview during the duration of the project. Furthermore, an eLearning system allows students to ftp their work to a departmental server on a regular basis. A test log of submitted work and simple version control tracks students' performance. A particular server allows students to install software in pre-specified folders. This reduces the chance of hard coding, which is a bad practice normally committed by most students. Video conferencing facilities can be in place to allow formal communication between students and supervisor at pre-defined interval, such as once a week, and a log on students' progress and supervisors can be maintained. . z

Assessment – The assessment system usually composes of two elements: quiz and test. Quiz provides immediate feedback to enhance the learning process whereas tests are for evaluation of students progress with the following functions: 9 Calculate marks automatically 9 Generate reports on the performance for quiz as well as test for the individual, the class and for different cohorts. 9 Students can learn at their own pace and are free to choose the time and level for their quiz with summary feedback on the performance indicating Web-based Logging of Classroom Teaching Activities for Blended Learning 23 weakness in certain areas. 9 Students' learning pattern rules can be derived through statistical analysis of their learning results be the course web site using data mining approach.

Course Work Management – Students can submit coursework with specific instructions and assigned readings. The collection of assignments is based on a predetermined schedule and at the pace of students' progress. 9 Create lockers with unlimited number and level 9 Edit the lockers 9 Remove the lockers 9 Submit homework to the locker through the web browser 9 Acknowledgement on receipts to avoid disputes

Scheduling – This acts as a communication channel between lectures and students. Course assignments, submission deadlines and requirements can be broadcasted to students by lecturers. The lecturers can also mark down project meetings and agreed work schedule with students. Shareware can be modified for this purpose.

[10] ADVANTAGE OF BLP

In the present scenario the whole education system is only exam oriented for student's and teacher's. student are only receiver, that teacher throws and they catch. so , blended learning programme will helpfull for student's and teacher's.

Importance of the study as follows.

- 1) Student's should not get only information, they should have their own thinking, their own views about everything. For that blended learning approach positive.
- 2) With the help of this study, the effectiveness of blended learning approach in classroom and student's thinking will be known.

- 3) This will be helpful to the student's in learning chemistry with blended learning approach.
- 4) Blended learning programme will be helpful to the student's to improve or increase their higher order thinking.
- 5) Researcher will provide suggestions regarding how to create and sustain classroom learning environment which will be helpful to the student's and teachers.

blended learning different from classroom learning

Blended learning is online , e-learning ,face-to-face and online interactions.

Blended learning including (1) Blogs for commentary and opinion (2) Discussion boards for critical thinking , brainstorming (3) Live internet streaming for debates ,revision (4) Web/ Video conferencing for feedback ,debating (5)Mind mapping for experiment ,development of project (6) Twitter for problem solving (7) Screen capture / recording for face-to-face learning,problem solving (8) Open education resources for youtube,story-telling (9) Flipped classroom for debate,question make decisions

[11] LEARNING OUTCOMES AND CHALLENGES IN IMPLEMENTING BLENDED LEARNING PROGRAMME

Learning Outcomes

The series of trials in Victorian schools from 2006-2011 have demonstrated improvements in student learning, attitudes and engagement as a result of integrating blended approaches into teaching and learning. The projects in these blended learning trials offered greater options for personalisation of study and put students in control of their own learning. Students were able to vary their pace of learning, drawing on as few or as many resources as necessary, choosing tasks/resources that best suited their learning styles and level of prior knowledge. Students could use teacher created vodcasts to review class work, practise their knowledge of a text by playing their aligned online games, and demonstrate knowledge of principles by recounting their own understanding of the topics through claymation storytelling. Blended learning approaches allowed students to shine in competencies other than the traditional literacies, as leaders, ICT technical experts, cultural experts, resource managers, and negotiators. They also acquired new literacies of online protocols (cybersafety), intercultural understanding through exposure to global connections, and constructing/synthesising knowledge from non-linear content. 23 Blended learning: A synthesis of research findings in Victorian education 2006-2011 As a result, students became more informed, more resourceful and constructed their own learning paths, ultimately producing better work outputs. Increased system knowledge of how to use and integrate ICTs into better teaching and learning practices raised expectations and outcomes for students. Access to infrastructure assisted both teachers and students to achieve better outcomes through flexible access to content instruction and experts. It enabled their work to expand beyond the classroom boundaries and provided students

with the means to document and reflect on their learning, and share and validate their learnings through their personal networks. By using such tools as digital portfolios, films, and games they were able to create evidence that demonstrated deeper conceptual understanding, enquiry and knowledge. Connected Learning The Victorian blended approaches facilitated connected learning. Students became better connected to their learning environments both inschool and beyond the school. This included teachers, coaches, peers and community experts, locally and globally. The portability of ICT devices and the ease of sharing the learning outputs via a range of online options extended learning opportunities well beyond the classroom walls through online conferencing, blogging, forums and discussion The Benefits of a Blended Learning Approach 24 boards. Students tended to produce more considered projects when their work was likely to be shared or viewed by parents, experts and their peers.

Challenges in Implementing Blended Learning

Strategies The trial projects have identified a number of challenges for teachers and students to implementing blended learning strategies: developing blended pedagogy• teacher support and professional development• technological challenges• student preparation/support and transition• assessment considerations• culture and innovation.

[12] CONCLUSION

Blended learning defined as “to combine various pedagogical approaches (e.g., constructivism, behaviourism, cognitivism) to produce an optimal learning outcome with or without instructional technology”

Blended learning is embraced for promoting situated learning, which refer to learning in term of activity and participation in a community of practice. As students observe their peers, reflect what they do, and practice apprenticeship, they develop habits, beliefs, identities, and skills that are share by the community through

Interaction Blended learning enables learners to learn in various ways possible, including problem-based and activity-based learning

> In order for meaningful learning to occur, students should relate new information to their current cognitive structure. If they can't link between new and existing knowledge, they fail to understand new concepts.

> Therefore, Students should have mastered basic ideas first and then should learn more complex ones.

> Curriculum programme should be based on the blended learning design and textbooks should be improved. So, that students' misconceptions can be minimized.

> Teacher education should place an emphasis on blended learning design. Teacher should be aware of students' attitudes towards chemistry as a school subject and should seek ways to make students have positive attitudes.

> Blended learning programme is useful for higher achievers as well as medium and lower achievers. By this one can increase academic achievement of medium and lower achievers.

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