Blended Learning By Incorporating LMS, E- Learning & Traditional Learning To Suit The Changing Requirement Of Learner

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Abstract : *This paper discusses one of the best practices for e-learning in Atharva College of Engineering (ACE) with blended learning. The paper discusses the blended learning and its advantages as well as disadvantages. The main focus of this paper is to show how Course Networking was introduced as a blended learning tool in the Academics and how it improved the teaching learning process as well as the outcomes. The paper outlines the strategy and the framework designed by the Department of Computer Engineering and how it made the difference. The paper highlights the positives as well as area of improvement of the Course Networking as a blended learning tool.*

Keywords : *e-learning, course networking, blended learning, education practices*

I. Introduction

In traditional learning system students are considered as a knowledge hole where information should be filled as per the syllabus. But now a days students need a change in the teaching methodology because they are able to learn faster than any other generation [2] .This formal method of teaching in classroom does not consider the changing requirement of students. Even though e-learning where resources such as databases, books, journals notes and other materials are made available to learner solves this problem upto some extent but it does not impart practical skills .For the same personal attention of teacher and practice of learner is required. Even by implementing traditional and e learning there is a need to have learning management system which helps in online lectures, conducting quizzes,online assignment submission ,grading etc. makes learning a fun.

II. Blended Learning

Blended learning is a term increasingly used to describe the way e-learning is being combined with traditional classroom methods and independent study to create a new, hybrid teaching methodology. It represents a much greater change in basic technique than simply adding computers to classrooms; it represents, in many cases, a fundamental change in the way teachers and students approach the learning experience. It has already produced an offshoot – the flipped classroom – that has quickly become a distinct approach of its own. No single, reliable definition of blended learning exists, or even a universal agreement on the term itself. Many use terms like hybrid, mixed, or integrative to describe the same trend.

A Learning Model in Three Parts

Here is a general consensus among education innovators that blended learning has three primary components In-person classroom activities facilitated by a trained educator. Online learning materials, often including pre-recorded lectures given by that same instructor. Structured independent study time guided by the material in the lectures and skills developed during the classroom experience.

A course created in a blended learning model uses the classroom time for activities that benefit the most from direct interaction. Traditional education (especially at the college level) tends to place an emphasis on delivering material by way of a lecture, while in a blended learning model lectures can be videotaped ahead of time so the student can watch on their own time. The classroom time is more likely to be for structured exercises that emphasize the application of the curriculum to solve problems or work through tasks.

An individual semester of blended learning may emphasize classroom time at the beginning, then gradually increase the amount of work that students do online or during independent study. Many argue that class discussion boards, for example, are far more useful if the participants have met face-to-face first.

Blended Learning Redefining Teaching Roles:

In some situations, the move to blended learning has inspired educators to redefine traditional roles. The word "facilitator" has emerged as an alternative to "teacher," bringing with it a slightly different focus. The facilitator places an emphasis on empowering students with the skills and knowledge required to make the most

of the online material and independent study time, guiding students toward the most meaningful experience possible. Facilitators focus on four key areas.

Development of online and offline course content. Facilitation of communication with and among students, including the pedagogy of communicating content online without the contextual clues students would get in person. Guiding the learning experience of individual students, and customizing material wherever possible to strengthen the learning experience. Assessment and grading, not unlike the expectations for teachers within the traditional framework .By putting an emphasis on learning through supervised activities, blended learning has proven to be very adaptable to what some corporations are calling blended training. Trainers can shift their focus from the delivery of knowledge to its application, and companies spend less flying trainers around to oversee all instruction in person.

Blended learning is the integration of digital tools, techniques and materials with the physical classroom. In a blended course, students may view lectures, access readings, ask questions, and complete assignments online in virtual learning environments (VLE) like Moodle and through online classrooms such as Zoom, freeing up in-person class periods for discussions, activities and traditional lectures. Other terms, such as mixed, hybrid, or integrative learning, all describe the same method of teaching.

Why Blended Learning?
Blended Learning combine the freedom of e-learning with the opportunity to personally interact with lecturers and fellow students. For example, the lecturer, or facilitator, may assign an online video for students to watch, then spend the class discussing the content, demonstrating different methods and allowing students to practice techniques with immediate, instructive feedback. Blended courses offer numerous other benefits, including:

Flexibility: Busy, geographically dispersed and mature students have more control over their schedules, avoiding the hassle of a daily commute

Independence: Students often develop independence and motivation by working in their own time at their own pace
Diversification: Students have access to a rich array of learning tools and styles they may not encounter in the traditional classroom

Support: Students experience the personal engagement and support of interacting with their lecturers and classmates while benefiting from the flexibility of online delivery
Although blended learning has gained much popularity in higher education, academics' blended learning implementations are most often used for the purposes of efficiency and supplementation, with only a minority implementing approaches that fully exploit the potential of blended learning to enhance the learning experience (Hofmann, 2006; Driscoll, 2002). In effort to gain a better understanding of academics' design and implementation of blended learning, a literature search was undertaken using Thomson Reuters' Web of Knowledge citation database.
A synthesis of key themes of literature typical to each subcategory provided a sense of the shape of the scholarship landscape of blended learning in higher education and revealed a deficiency in literature related to understanding academic practice. It is argued that this deficiency is a major impediment to the realization of the unfulfilled potential of blended learning in higher education. From this perspective, the paper makes a valuable contribution in the form of underscoring a pressing need for further research aimed at understanding the factors shaping academics current practices in blended learning. This paper is of interest to those supporting academics in blended learning design and as guiding resource for researchers into blended practices and novice blended learning practitioners.

Advantages and Disadvantages of Blended Learning
Table 1: Advantages and Disadvantages of Blended Learning

| Advantages	Disadvantages
Opportunities to create learning communities	Time required
Less class time with use of internet	Faculty to student relationship
Flexibility	Technology support
Increase interaction from student	Learning curve for both Faculty and student in Learning the technologies
Improve technology skill	Faculty perception of blended learning
Asynchronous Communication	Student perception of blended learning

III.   Review Of Literature

Thomson Reuters Web of Knowledge online academic citation index allows access to multiple databases and "covers over 12,000 of the highest impact journals worldwide, including Open Access journals and over 150,000 conference proceedings" (Thomson Reuters, n.d, para. 1). The term 'blended learning', although widely used, is not well defined. The definitions and understandings of the concept are many (Driscoll, 2002; Vignare, 2007). For the purposes of this paper, 'blended learning' broadly refers to the use of technology with face to face teaching. The Web of Knowledge was used to search blended learning literature on the 10 December 2011 using the terms ((blended learning OR hybrid learning) AND (university OR higher education OR faculty), all languages, literature included journal articles and conference papers, for all years, all databases. Using the Web of Knowledge was deemed to give a better perspective of the cross-section of literature than searching through a set of specific journals, in which the focus of the journal skews the content of articles in each journal. The search yielded 1172 results of which 827 were relevant. For example, many of the "how-to" case studies consider the student experience and some of the papers focusing on the student experience make a mention of the academic experience. Hence sorting each of the 827 relevant articles took place according to its main stated purpose or aim, this being the dominant content of the paper.

IV.   Blended Learning At Atharva

At Atharva College of Engineering we have implemented a blended learning system which incorporates e-learning and LMS into formal learning where individualized support to students is provided with access to online resources anytime, anywhere. Course networking facilitates group discussion, personalized chat etc. which makes teaching learning process more interactive and brings it beyond the classroom boundaries. It also brings major stakeholders (Student, Faculties and Parents) on same platform simultaneously. We are continuing traditional learning method by having lectures in the classes. E-learning is supported with the help of virtual classes, IUCEE etc.. We have also incorporated e-learning with the help of Course Networking learning management system. Some course networking features has motivated us to implement it in our institute. They are:

1. It has been developed for managing courses online, It helps in collaboration and communication between students and teachers and distribution of course material.
2. It provides automated grading ,analysis of quizzes and polls for thefeedback and testing of learner's knowledge
3. It helps in sharing of knowledge with the help of post and chat.
4. It creates an academic Social Network whose goal is to learn.
5. It leads to gamification of teaching learning process by introducing Anar seeds and badges. Badges are the reward of work which also motivates students. Anar seeds are obtained whenever some activity such as polling, posting a message reflecting on a post is performed on course networking.
6. It is freely available
7.
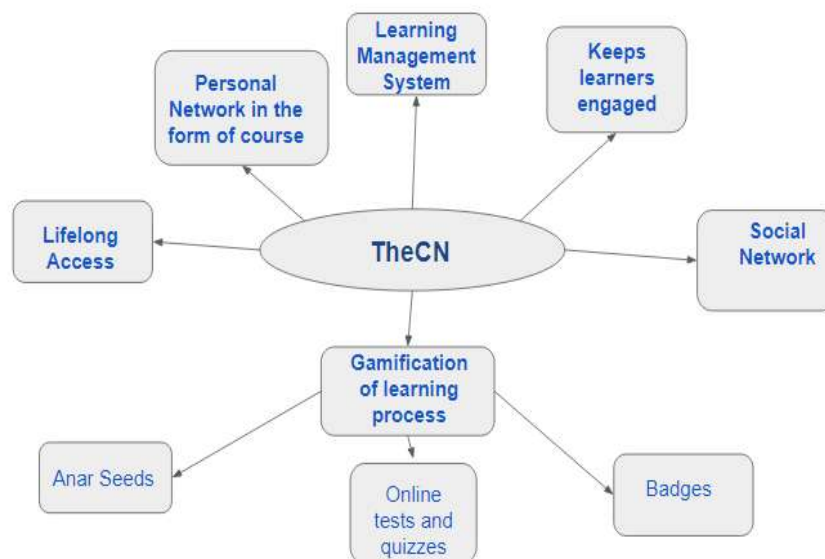
In Atharva College of Engineering, we observed a steady growth in the number of students using the Course Networking as a Blended Learning Tool.

Table 2: CN Users At Atharva, Even Semester 2016-2017.

BRANCH	CLASS				
	FE	SE	TE	BE	TOTAL
CMPN		160	163	163	486
IT		128	155	166	449
EXTC		104	164	163	431
ELEC	NA	62	78	72	212
ETRX		66	74	74	214
HAS	358	NA			358
	GRAND TOTAL				2150

The graph shown below shows the total department wise active participants on course networking:
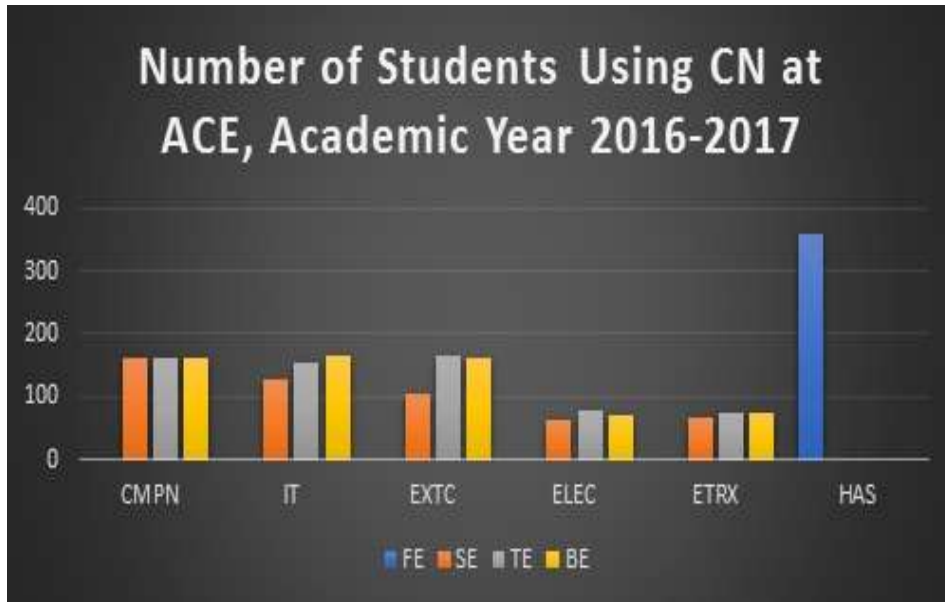

Fig.1: Graphical Representation of CN Users At Atharva, Even Semester 2016-2017.

As stated above it provides badges and anar seeds to the learners, courses and instructor. In computer engineering department the Max Anar seeds of best performing faculty is 22744 with 322 followers. There are different courses available on course networking corresponding to subjects. In our department total we have got 4 Course of the week 54 Post of week badges, 5 top 10% participant badges as shown in pie chart given below. As the students and faculties are using this platform on daily basis so these statistics will surely increase.
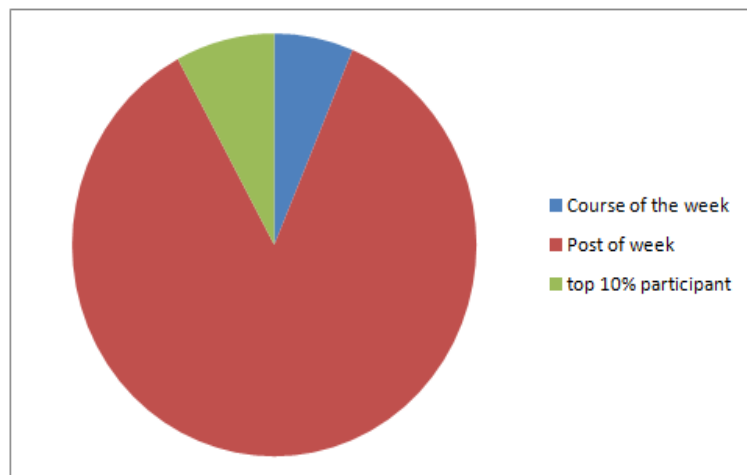

Fig. 2: Performance at Course Networking

V. Future Scope

In today's fast life parents want to know the details of their ward but because of time constraints and other commitments they are not able to come and meet the instructors. We have found the solution by conducting online PTM. In this academic year we are planning to have online parents teacher meeting through video conferencing. At the same time we are planning to upload video lectures on course networking, So that students should be able to refer them whenever they study at home.

VI. Conclusion

Blended learning has made teaching learning process very easy and manageable. The main building block of our blended learning implementation is Course Networking LMS. Course networking is also incorporating e-learning(resources provided by instructors on the platform).It not only provide online assessment and submission of assignment of student but it has a long way ahead to go. It should provide the features such as automatic assignment evaluation with built in plagiarism detector and keyword matching system and single sign on.in single sign on same id will be used every time all the publication ,assignment and study related work of that person will be available in near future [1].There should also be in cash of anar seeds and badges in the form of access to some research papers of paid journals. Despite of given drawbacks blended learning is a learner centric methodology. It has overcome the teaching gap between learner and instructor.

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