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From Teaching, Learning to Assessment: MOODLE experience at B'School in India

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Abstract

Many universities are taking initiatives to start eLearning courses using open source software based LMS portals. UGC has also declared the norms to grant permissions to such courses. MOODLE (Modular Object Oriented Dynamic Learning Environment) is one of the widely used environments across the reputed universities in the developed countries for such courses. IIT's, IIM's, TISS, Harvard Business School, Open university of UK and many other institutions from different parts of world are using Moodle for the teaching, learning and assessment of their students in all courses because of its Flexibility, Customization and Security offered with no extra costs.

The objective of this research is to explore use and benefits of MOODLE Open Source Platform by presenting firsthand experience and responses from the users (both Faculty and Students) about MOODLE (www.moodle.org).This is being used for Teaching, Learning and Continuous Assessment for MBA program at Symbiosis Institute of Operations Management (Nashik, Maharashtra), one of the reputed B'School under Symbiosis International University, Pune (Maharashtra) in India.

Keywords: MOODLE (Modular Object Oriented Dynamic Learning Environment), Open Source, ICT (Information and Communication Technology), B'School (Business School)

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1. Introduction

1.1. **Open Source** *(www.opensource.org**):*

In the past decade, open source software has become one of the most used platform among software users, developers and practitioners for their personal as well as professional usage.

The interest in open source software is increasing because:

- The success of products such as Linux and Apache are gaining popularity as well as market share;
- The agitation about the Microsoft monopoly in the software industry; and
- The "classical" approaches to software development are failing to provide a satisfactory answer to the increasing demand for effective and reliable software applications (Fuggetta, 2003).

The Open Source Initiative ("OSI") defines Open Source as software providing the following rights and obligations which motivated users to go for Open Sources.

a) Unrestricted distribution: There is no royalty or other fee imposed upon redistribution.
b) Source code distribution: Availability of the source code of the entire open source product to the client.
c) Modifications: Client gets right to modify and derivative works.
d) Author's source code integrity: May require modified versions to be distributed as the original version plus patches.
e) No personal discrimination: Every user is treated same.
f) No restriction on application: One can use it for any industry or personal work as well.
g) License distribution: All rights granted must flow through to/with redistributed versions.
h) License is not product-specific: The license applies to the program as a whole and each of its components.
i) No restriction on other software: The license must not restrict other software, thus permitting the distribution of open source and closed source software together (Webbink, 2003).
j) Technology neutrality: Licenses should not be issued on the basis of the specific technology involved (Lakhan & Jhunjhunwala, 2008).

1.2. Open Source in Education: A Powerful Aid (www.elearningindustry.com)

LMS (learning management systems) has emerged as very viable solution to many schools, colleges and universities, particularly universities from past 8-10 years. LMS has helped the institutions for the presentation of the content or instructional design of the different courses and played a vital role in serving educational and instructional objectives.

There is other side also. Poorly selected and presented content from such LMS has severely affected the teaching learning experiences in many cases.

Instructional design is a scientific method of approach to deliver content in "an interactive and most effective manner" to a particular group of students in order to meet certain specific learning objectives in time bound manner by considering the pace of the student also. It is based on the principles of Educational Pedagogy, Human Psychology and the technological benefits offered by Information Technology, in dealing with different issues of teaching and learning at different age groups.

The main advantages of use of open source LMS are as follows:
a) Freely Available: You don't have to pay annual subscription payment or renewal charges to software companies. e.g. Everyone has to pay Microsoft for Windows and Ms-Office.
b) Greater Flexibility: Open source products are customizable according to the need. New features and tools can be imported from the open source community whenever need arise.
c) Free Service: The huge collaborative network of the open source community minimizes the risk, although it does not eliminate, the risk of discontinued service. Volunteers help is available through open source support systems such as forums.
d) Continuous Improvement/Upgrade: Extensive collaboration ensures the upgrades in the software products. Programmers from different institutions and organizations, along with volunteers, contribute freely to projects.
e) Tax benefits: Governments of many countries have implemented tax-exemption policies to boost open source projects. In India for educational purchase octroi charges are waved on some conditions.
f) Online Documentation: All help and documentation required to use and run the open source software is available on the respective software's site.

1.3. MOODLE(www.moodle.org) (Modular Object Oriented Dynamic Learning Environment)

This Learning Management System (LMS)software automates the wide administrative tasks in educational institutions, such as registering users, Planning the courses, tracking course execution, recording data, charting a user's progress for certification, and providing reports to accreditation and control bodies like UGC, AICTE from India. These systems also help students for interactive Learning and better engaging with the courses than traditional methods of delivery. There are many such platforms available on the web. To name a few: Blackboard, WebCT, Alpha LMS, Link2school, CentraOne, Consensus, Web-guru, Lmswizdom, Wiziq and Moodle.

Moodle is abbreviation for Modular Object- Oriented Dynamic Learning Environment is a free source e-learning software platform. Moodle is called learning management system (LMS) or a Virtual Learning Environment (VLE) which is most popular all over the world because of several features it offers.

Some typical features of the Moodle are:

- Assignment submission
- Discussion forum
- Files download / upload (supports many formats)
- Grading / Marks
- Moodle instant messages / mails
- Online calendar
- Online news and announcement (College and course level)
- Online quiz
- Wiki

Many institutions from different parts of world are using Moodle for the teaching, learning and assessment of their students in all types of courses because of its Flexibility, Customization and Security offered with no extra costs.

Moodle environment also helps to understand the topics with interactive ways like:

- Activities (including games)
- Different resource types as document, presentations, spreadsheets, audio and videos, pdf etc.
- Different question types (multiple choice, true and false, fill in the blank, etc.)
- Data field types (for the database activity)
- Graphical themes to make interface attractive
- Authentication methods for control and keeping track (uses username and password accessibility)
- Enrollment methods
- Content filters

The Open University, UK is the second-largest Moodle deployment by user-base, with 714,310 users and 6,093 courses. Moodle has continued to evolve since 1999, started with Moodle 1.0 and the current version is 2.6, which was released in November, 2013.It has been translated into 82 different languages.

Moodle Current Statistics as on 3rd Jan 2014, 17.00 pm

(Source: www.moodle.org)

- Registered sites   67,634

- Countries   235

- Courses   7,135,184

- Users   66,654,851

- Teachers   1,174,836

- Enrollments   77,646,455

- Forum posts   116,145,991

- Resources   62,627,844

- Quiz questions   166,536,384

MOODLE experience at Symbiosis Institute of Operations Management (SIOM), Nashik (MAHARASHTRA, India)

Background:

SIOM, Nashik a unique Institution under the banner of Symbiosis International University, Pune. It is a competency building institute, started in 2005, with phenomenal achievements. Students at SIOM wear many hats as versatile, adaptable and multitalented and someone who has a rich and successful life and career. SIOM's innovative curriculum challenges industry thinking and introduces multiple business perspectives to build the foundation for current industry needs. SIOM moulds engineers to become an effective Techno-Business Managers and leaders.

The SIOM fraternity is highly committed to its mission "Empowering Operations Excellence". It offers MBA degree in Operations Management for only engineers. It is two years' residential program with total four semesters and each semester has 10-14 Courses/subjects to be studied. Each Course is 1, 2 or 3 credit. One credit courses are internal courses with only internal evaluation while 2 and 3 credit courses have both internal evaluation as well as external university examination.

For 2 credit course, 30 hours Contact Sessions by Faculty are mandatory. It is of 100 marks subject with 60 marks for internal evaluation. Internal evaluation is of continuous basis with minimum 4 evaluation components. Remaining 40 marks are for Final University Examination.

Similarly, for 3 credit course, 45 hours Contact Sessions by Faculty are mandatory. It is of 150 marks subject

with 90 marks for internal evaluation. Internal evaluation is of continuous basis with minimum 5 evaluation components. Remaining 60 marks are for Final University Examination.

SIOM started using Moodle in JUN, 2010 with Online Quiz as one out of four Internal Evaluation components for MBA course in all Semesters for almost all subjects. Now, most of the faculties are using it for conducting different class activities like discussion forum, assignments, and group activities/projects and so on.

Team Involved with Roles / Responsibilities for this Project was:

- 1 Faculty In charge / Head of Activity – Project Initiation, implementation and overall control and guidance.
- 1 System Administrator – Configure and Setting up Moodle Platform under guidance from Faculty In charge.
- 1 Examination coordinator – Coordinate and Upload Question Banks and configure Quiz and compile results.
- 1 Computer Lab Assistant- Lab Support during monitored Online Quiz.

Statistic of One Evaluation Component <u>without MOODLE platform</u>
(For 120 Students):
Following figures are based up on interviews with 12 faculties of different courses.
Faculty Time Required (Approximate in Minutes):

Setting up one Question Paper/one Case Study/ one Project Work	– 360 min.
Evaluation of 120 Answer Sheets for each component (if Individual work – 10 min. per student)	-1200 min.
Evaluation of 120 Answer Sheets for each component (if Group work – 30 min. per Group , 5 Students in a Group)	-720 min.
Examination Time (if any)	- 30 min.
Other Co-ordination/Compilation of Results by Examination Department	- 180 min.

Total Time for one evaluation Component <u>without MOODLE platform</u>: 1290 to 1770 minutes (approx. 22 to 30 hours)

Statistic of One Evaluation Component <u>using Moodle Platform</u>(For 120 Students):
Following figures are based up on interviews with 12 faculties of different courses.
Faculty Time Required (Approximate in Minutes) :

Setting up Question Bank/one Case Study/ Project Work for Moodle <u>with Model Answers</u>	– 480 min.
Uploading the Component on Moodle	- 60 min.

Evaluation of 120 Answer Sheets for each component

(if Individual work – 10 min. per student)   - NIL

Evaluation of 120 Answer Sheets for each component

(if Group work – 30 min. per Group , 5 Students in a Group)   -NIL

Examination Time (if any)   - 60 min.

Other Co-ordination/Compilation of Results by Examination Department   - 30 min.

Total Time for one evaluation Component <u>using Moodle Platform</u>: 600-630 minutes (approx. 10 to 11 hours)

Thus, for every subject about 11 hours of time is saved with the use of this platform.

Faculty response about <u>Moodle Platform</u>

When asked about the MOODLE quiz and its suitability with subject, 86% faculties replied with "Yes". They are happy with the MOODLE quiz as one of the component. Same number said that they will be happy to use the MOODLE platform for online communication to students with respect to sessions and other related activities also. 70% faculties are ready to conduct Discussion Forums, Case discussions, debate on the contemporary topics and analysis, create blogs, share resources and other materials online. They want all the evaluation components to be conducted online. Others were found less tech-savvy during informal talk, hence needs to provide assistance so as to remove resistance out of just fear about technology.

Student's response about <u>Moodle Platform</u>

When asked about the MOODLE quiz to students, 78% were happy with MOODLE quiz and about result at the end of the quiz. 65% were happy because answering multiple choice objective is simple than subjective questions. But, 75% said that MOODLE is helping them to get status about subject knowledge immediately at the end of the quiz which is helping them to study more and focus on the subject. 73% are of the opinion that even for objective quiz like MOODLE quiz, good amount of study is required to score good marks. One should not rely on just luck. 57% students are in favor of conducting other evaluation components with MOODLE platform like Forums, blogs, online assignments, cases and group activities, debates etc.

While rating MOODLE platform on the scale of 5 (1 Very bad, 2 Bad, 3 Ok, 4 Good and 5 very good) about satisfaction level, 89% students rated MOODLE with more than 3, in that 50% rated with rating 4 and 12% with 5. 11% seems to be less tech-savvy or less comfortable with getting marks quickly at the end of component. Only 16% were against the point about depth of knowledge being tested with online platforms. Same were of the opinion that, not good amount of hard work and study is required for such online components to score good

marks. Thus, 89% students were overall satisfied and rated more than 3 on the scale of 5 in which 50% rated it as 4.

2. Conclusion

1. Moodle is very interactive platform for Teaching, Learning and Assessment at MBA colleges in India. This offers features like free availability, less technical difficulties to install and configure service and support from community, Flexibility, Continuous Improvements, widely accepted and successfully implemented by Top Institutions all over world.

2. Social constructivism philosophy also acknowledges the complex nature of each learner and agrees with the support provided by this platform for learning.

3. Moodle is found to be very useful for Internal and Continuous Evaluation at MBA courses. It saves time for the faculty and administrative peoples of the institution of conducting and monitoring Internal Evaluation Components to almost 2/3, thus allowing more to time to value adding activities and time to think for better teaching methodologies.

4. It increases the involvement and satisfaction levels of the students in current ICT technology world by utilizing the IT resources and infrastructure in the institute which in turn improves ROI of the IT resources.

3. Further scope

This study is from one college and for 120 students of MBA course only. For generalizing the results, it has to be studied for different streams with different situations of ICT resource availability. But today, ICT infrastructure availability is not major problem than the mindset of the peoples. It is a person, who makes difference in such projects.

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