

Insights Of Moodle Usages In The Teaching-Learning Methodologies

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ABSTRACT:-

As the technical era is on its peak of progress, its effects can be deeply seen in the education system also. The newer technologies like Artificial Intelligence, Machine learning etc are imposing incredible changes in the teaching-learning methodologies.

The schools, colleges, Institutes and Universities across India are using innovative ways of learning and trying to engage students beyond the four walls of classroom through various Learning Management System (LMS) Tools, audio-visual resources, Virtual Class-room and e-learning platforms. LMS includes Moodle, TelEduc, BlackBoard, WebCT, Toolbook, TopClass Server etc.

Moodle is an Open Source Tool, and provides a platform for teacher to create their own e-learning websites. Teachers/Professors can upload study material, course plan, question bank, assignments, puzzles, quiz, crossword etc. using their personalized e-learning website. It also enables Teachers/Professors to track the progress and performance of the students. Students get unlimited access to study material and gets an opportunity to learn at their pace, ask queries, interact with tutor and other learners online, upload assignments, attempt quiz, and solve puzzles etc. within time frames. Professors gets an opportunity to assess and give feedback online for the assignments submitted by the students. The platform enables to enforce learn while earn concept amongst students.

This paper includes literature review of Moodle usages amongst various Institutions under SavitribaiPhule Pune University, SPPU through a survey analysis. The findings from the analysis are improved students performances and enhanced teaching-learning methodologies (through LMS).

Keyword: - Learning Management Systems; Moodle, Virtual Learning Environment (VLE)

I. Introduction

In nowadays education system is undergoing with various changes, considering new ways of teaching and learning with the use of modern technology, Artificial Intelligence and the Internet. The Internet is excellent tool which plays vital role in our daily life and use of Laptops have created the technical situations for teachers and learners can benefit from the variety of online information, communication, collaboration and sharing significant news with others. Teaching-learning platforms, which are available online in education system and many practices by using audio-visual resources, Virtual class room and e-learning platform used throughout the world. This virtual environments used for creating and managing these online courses are: Moodle, TelEduc, BlackBoard, WebCT, Toolbook, TopClass Server, among others. These virtual management system is called Learning Management System (LMS). LMS used to organize eLearning content in one location, unlimited access to eLearning materials, monitor student progress and performance.

The Moodle (Easily tracks learner progress and performance) is e-learning platform used throughout the Universities, communities, schools and teachers serve up to communicate and transmit data to their educational communities. It is a free web application and open source tool that educators can use to create effective online learning sites and allowing any user with programming knowledge to modify and adapt the environment according to their own needs.

Many activities are done via Moodle e-learning system like uploading assignments allow students to submit work online, including uploading any file type

(Word document, PowerPoint, video clip etc.). Professors can grade and give feedback also. Quiz module allows the professors to design and set quiz tests, and includes a grade of question types and reporting options. Allow students submit competency based activity, practical's, project synopsis and so many things. Students can see the lesson plan, course plan and question bank. Students can give quickly preview the result of Mid-term, End term examination result. Posting Homework, watching a faculty lecture presentation, notes, bibliography, monograph recruitment and interview process also conducted via Moodle system. The courses that are developed on the web have the advantage of providing the content for students anywhere in the world, faster than the other conventional methods distance education.

The abundant success of this e-learning Moodle (LMS System) is perfect learning platform to manage, deliver and monitor students' performance in education system. This online education system support for working students who need to balance work and family. Moodle LMS is used by over 60% of all higher education in the world. This e-learning system provides uses with a real time communication facility among the teachers and students. Although it cannot replace traditional education via the internet but opens the new teaching learning assessment opportunities. The use of e-learning system in this manner, the mobility of its uses makes the completion of traditional education. Moodle can be successfully used in the education system and in private or public institution.

II. RELATED LITERATURE

- 1) Kenzi Watanabe, Takamasa Umezu, "Development of a

Video Streaming Module for Moodle”, 2011 International Conference on Complex, Intelligent and Software Intensive Systems.

This paper provided recorded videos as a material for lecture reviewing of students via Moodle. Results of a questionnaire show the videos are good materials for review. Panasonic HDC-SD100 camcorder with HE (1440×1080) mode is used for recording. WebDAV was used for file upload. Time required for format conversion per file is 2Hr.

Students can watch any chapter as per need.

2) Suzan Hassan, Abd El Fattah Hegazy, "A Model Recommends Best Machine Learning Algorithm To Classify Learners Based On Their Interactivity With Moodle" Information Systems and Multimedia The Egyptian Cabinet, IDSC Cairo, Egypt.

This paper is used to develop the model for enhancing learner understanding and collaboration via adapting social LMS" VARK learning style inventory based on Neuro-linguistic programming models designed by Neil D. Fleming and launched in 1987 was used. The model is variable centered, person-centered and social approaches. In order to make classification as well as prediction for the learner's learning style LS. Classification technique in "WEKA" Tool was used for analysis.

3) Dr. Suneetha Manne, Sandeep Yelisetti, "Mining VRSEC Student Learning Behaviour in Moodle System Using Data Mining Techniques"

This paper is used to analyze the students' performance and predict the grades using Rapid miner. Decision tree algorithm gave greatest accuracy of 85% and with weighted mean of recall and precision as 75% and 89.63% respectively. Moodle VLE and CMS is used to track VRSEC students' performance based on Moodle

a VLE and CMS is used to track marks, reads, posts, quizzes.

4) Jose Roberto A. Rodrigues, Leônidas O. Brandão, H61ene Giroire, and Odette Auzende "iQuiz: integrated assessment environment to improve Moodle Quiz".

The paper presented an integrated model to provide means of authoring, auto-assessing and storing instructional content. The model is implemented as a Moodle plugin called iQuiz (interactive Quizzes in the Internet). This paper presented a model for creating and integrating educational assessment content and iQuiz, its implementation as an integrated module to Moodle. iQuiz is integrated with a repository that provides instructional content storing and retrieving in a granular fashion, meaning that questions may be searched and retrieved in isolation or in group, as a full questionnaire.

5) Gayithri Kuruppu, Dr. R.U. Halwatura, "Effectiveness of Moodle Application on Technical Tertiary Education in Sri Lanka". In this paper, students are preferred for e-learning culture than their traditional learning culture which helps to improve their learning ability through various teaching modes, enhance flexibility and usability of time & finally overall quality of the learning process. The paper measured the effectiveness of the Moodle in technical tertiary education in Sri Lanka.

6) Ria Mae H. Borromeo, "Online Exam For Distance Educators Using Moodle" 2013 IEEE 63rd Annual Conference International Council for Educational Media (ICEM). This paper achieves a survey and technology demonstration of the Moodle Quiz module in Moodle. The survey inquired the teachers regarding the features they want to be implemented in an online examination system. The result is a

proposal document for an online examination system for the university.

7) AbdulsalamKaedAlhazmi, Azizah Abdul RahmanWhy LMS Failed to Support Student Learning in Higher Education Institutions”

The paper summarizes the main causes of LMS failure into technological, theoretical, and pedagogical aspects, which need to be taken into consideration, especially with the new wave web 2.0 technologies in higher education.

8) MaedehMosharraf, FattanehTaghiyareh,” Increasing Moodle Resources through Cloud Computing”. This paper it’s utilization may be amplified through the adoption of an emerging ICT, Cloud Computing, which allows the virtualization of Moodle sites, cutting costs, facilitating management and increasing its service capacity. Moodle can also be used on Amazon and Rackspace, through the manual installation of Moodle in a Linux environment

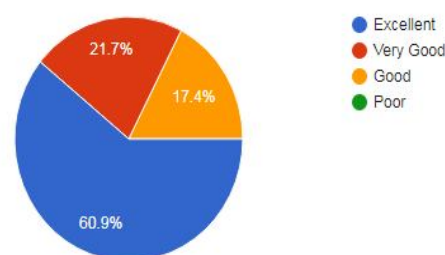
III ANALYSIS:

This paper includes a Survey of 100 Professors from SavitribaiPhule Pune University, out of which only 23 people responded. The survey is performed using Google Forms sent through e-mail and the analysis is performed using WEKA Tool. The result of analysis is as follows- 61% Professors has rated Moodle as an excellent tool for providing a convenient file management system. 26% Professors has rated Moodle as excellent in terms of enhancing Teaching-Learning Methodology amongst Institutions. 23% Professors has rated Moodle excellent in terms of built in report generation facility. 21.7% has rated Moodle as excellent in terms of conducting Competency Based

Activity and online assessments. 17% has rated Moodle as 100% secure.

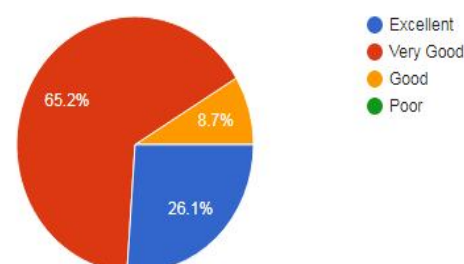
1.Moodle provides a convenient file management for Professors.

23 responses



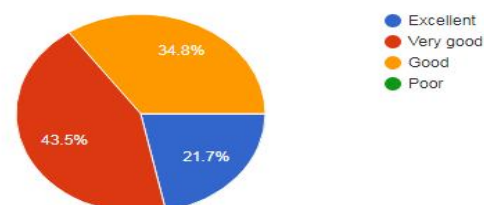
2.Moodle enhances Teaching-Learning Methodology amongst Institutions.

23 responses



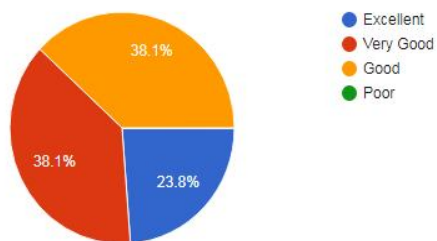
3. Moodle enforces various tools for conducting Competency based activity and assess/grade the submissions online.

23 responses



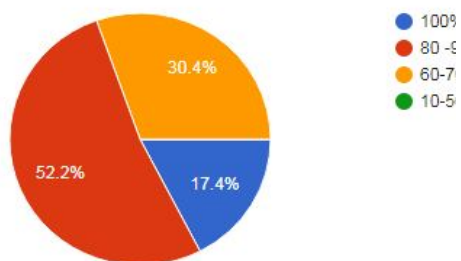
4. Moodle provides a variety of built-in reports based students' performance.

21 responses



5. How secure is moodle?

23 responses



Attribute	Full Data (23.0)	0 (13.0)	1 (10.0)
Timestamp	11/27/2019 12:50:11	11/28/2019 14:40:15	11/27/2019 12:50:11
Email Address	dipti.nashine@gmail.com	sarikachoudhari@hotmail.com	dipti.nashine@gmail.com
Score	0	0	0
1.Moodle provides a convenient file management for Professors.	Excellent	Excellent	Excellent
2.Moodle enhances Teaching-Learning Methodology amongst Institutions.	Very Good	Very Good	Excellent
3. Moodle enforces various tools for conducting Competency based activity and	Very good	Good	Very good
4. Moodle provides a variety of built-in reports based on students? performanc	Very Good	Very Good	Excellent
5. How secure is moodle?	80 -90%	60-70%	80 -90%
6. Can you customised moodle to make it relevant to your institution?	Yes	Yes	Yes
7. Does Moodle enhance students performance?	Yes	Yes	Yes

Time taken to build model (full training data) : 0.01 seconds

=== Model and evaluation on training set ===

Clustered Instances

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0    13 [ 57%]
1    10 [ 43%]
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IV CONCLUSION:

This study provides an insights about the utilization of Moodle amongst teaching staff. The observations are: Moodle is used widely by Management Institutions in Pune. Moodle enhances Teaching-Learning Methodology. It helps in tracking students' performance through differential Learning experience. Moodle enhance student's involvement in the course.

V REFERENCES:

- 1] Kenzi Watanabe, Takamasa Umezu, "Development of a Video Streaming Module for Moodle ", 2011 International Conference on Complex, Intelligent, and Software Intensive Systems.
- 2] Suzan Hassan, Abd El Fattah Hegazy, "A Model Recommends Best Machine Learning Algorithm To Classify Learners Based On Their Interactivity With Moodle" IEEE, 2015.
- 3] Dr. Suneetha Manne, Sandeep Yelisetti, "Mining VRSEC Student Learning

Behaviourin Moodle System Using Data Mining Techniques".

- 4] Jose Roberto A. Rodrigues, Leönidas O. Brandão, HeneGiroire, Odette Auzende "iQuiz: integrated assessment environment to improve Moodle Quiz" IEEE, 2013.

- 5] Gayithri Kuruppu, Dr. R.U. Halwatura, "Effectiveness of Moodle Application on Technical Tertiary Education in Sri Lanka".

- 6] ELizaphan M. Maina, Robert O. Oboko & Peter W. Waiganjo, "Extending Moodle Grouping Functionality Using Artificial Intelligent techniques" IEEE, 2017.

- 7] Abdulsalam Kaed Alhazmi, Azizah Abdul Rahman Why LMS Failed to Support Student Learning in Higher Education Institutions".

- 8] Maedeh Mosharraf, Fattaneh Taghiyareh, "Increasing Moodle Resources Through Cloud Computing".

- 9] Maedeh Mosharraf, Fattaneh Taghiyareh "Moodle Meets Linked Data: Publishing Moodle on the Web of Data Using Semantic

Links”, 2018 4th International Conference
on Web Research (ICWR).