

# EFFICACIES OF LEARNING MANAGEMENT SYSTEMS IN MOODLE PLATFORM

Dr. Ananthi Sheshasaayee

PG & Research Department of Computer Science  
QMGCW, Anna Salai, Chennai-600 002, India

M. Nazreen Bee

PG & Research Department of Computer Science  
QMGCW, Anna Salai, Chennai-600 002, India

**Abstract-** An E-learning system provides high availability of information resources and opportunity for student to interact with each other as well as with their instructors by electronic means. This study aims to present the relevant results of an effective online learning communities in Moodle educational system. Moodle platform could increase the learning motivation and also increase students to develop learning activities in the virtual space.

**Keywords-** e-learning, Learning Management System, Moodle

## I. INTRODUCTION

The current period of digital technologies use a variety of learning management system (LMS), which are usually easily accessed through the Internet. The Moodle learning system is used to record the Learner's interaction information and is stored in the students log database for determining new knowledge from the log files using data mining techniques. The electronic way of learning and teaching with students offers a lot of advantages. The open source Moodle system can be used in many applications. Moodle allows the integration of a wide range of resources recognize user involvement and effective framework [4].

Moodle is an extensive student's interaction resource design system to provide personalized learning environments to educators, administrators and learner. The following diagram Fig1. illustrate the importance of integrating Moodle system in Educational online sector for integrating effective information system.

### A. Built for learning, globally

Moodle learning system is trusted by online educational Institution. Moodle's system has spread to more than 90 million users in academic. The usage of Moodle system is widely used in learning platform.

### B. Scalable to any size

Moodle can be scaled to support the needs of both small range and large range of educational intuitions. From a few learners

to millions of users its make a Moodle system a appropriate learning management system in educational e-learning styles. Because of its flexibility and scalability, Moodle has been adapted by users in education and community contexts.

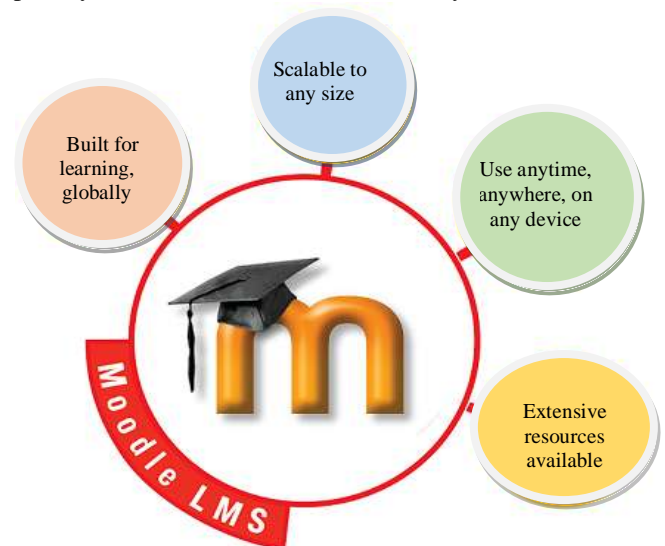


Fig 1. Moodle Integrated System

### C. Anytime in anywhere on device

Moodle is an effective information system so that can be accessed from anytime in anywhere in the world through Internet. Moodle platform is easily accessible by using a mobile compatibility [2].

### D. Extensive resources available

Moodle system is used to access extensive learner's log files documentation. It is a free content provider system and the information is shared by Moodle users across the world.



## II. DISCUSSION ON SELECTED PAPERS

The open source Moodle learning management system can be used in online electronic learning. Moodle allows the incorporation of a wide range of resources from learning experiences.

The data mining techniques are applied to create and implement the model that summarizes the interest knowledge from the students log files.



Fig 2. Recognize user involvement in learning experiences

. Student's learning experience log files can be preprocessed using filtering and cleaning process. The instructor can use those log files to make decision that, who has been active and inactive in the learning course. Discovering knowledge from log files can be done by exploiting following data mining techniques [12].

- a. Data cleaning – Discovery of valuable patterns, by detecting deviation and inconsistent data from a huge collection in the datasets.
- b. Data Integration – Integrating data from multiple resources can be combined to form a appropriate form.

- c. Data Selection – Relevant data can be mined and analyzed for decision making.
- d. Data transformation – Consolidated and transformed into appropriate form for applying data mining techniques.

To Summarize the framework can be exploit by applying data mining techniques on it and build the model that discover the patterns for future decision making. To enhance the effectiveness of online course visualization of data which provides feedback and redesigning of course framework

## III. RESEARCHERS INSIGHTS ABOUT THE EFFECTIVENESS OF THE MOODLE TO STAND-IN THEIR PERCEPTION

Moodle has pedagogical advantages since it was built in accordance with the teaching approach which emphasizes the production of knowledge through active and interactive learning [1].

The log data files are cleaned and integrated into an appropriate format to be mined. Moodle system stored the student's interaction of every click that students make for learning purposes and has a excellent log screening system built into it. The following diagram which illustrate the sample of log files stored in the Moodle system.

Time	IP Address	Full name	Action	Information
Sun 11 February 2007, 10:00 PM	127.0.0.1	Admin User	course view	Course Fullname 101
Sun 11 February 2007, 09:57 PM	127.0.0.1	Admin User	course view	Course Fullname 101
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	quiz report	5
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	quiz report	5
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	quiz preview	5
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	quiz view	5
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	course view	Course Fullname 101
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	quiz preview	4
Mon 15 January 2007, 01:44 PM	127.0.0.1	Admin User	course view	Course Fullname 101
Mon 15 January 2007, 01:43 PM	127.0.0.1	Admin User	quiz preview	3
Mon 15 January 2007, 01:43 PM	127.0.0.1	Admin User	quiz view	3

Fig 3. Students Interaction stored in Moodle system



Table 1. Researcher's common insights in the effectiveness of the Moodle

AUTHOR'S	INSIGHTS COMPONENTS
Gorgi kakasevski et al.	The results of their analysis is to identify students rating of Moodle usability. And also summarized the usability problems defined by students and teachers. Moodle was tested as a system and results provides a quantitative and qualitative data [1].
Martin Dougiamas et al.	This paper has outlined a methodology to construct an learning management system Moodle which is grounded in research from the fields of education and internet software development [14].
Michael Machado et al.	This study which compares the user experience between the blackboard and open source solution, Moodle. In their results, established online surveys to compare user experience between Blackboard and Moodle [13].
Dave Bremer and Reuben Bryant	This results indicates the reflections of instructor using Moodle and the products appears worthy future consideration for the upcoming researchers [12].
Brian Beatty and Connie Ulasewicz	This paper shifted commercial online tool such as Blackboard to Moodle. Authors represents not to get focus on what your students learn, but certainly make your teaching more effective and your student's learning more successful [11].
Miroslav et al.	In this paper which identify usability issues of e-learning system. Accessing Moodle learning management system on mobile devices using adaptive technologies such as google proxy [10].
Gorgi Kakasevski1 et al.	With this research, appraising usability in learning management system Moodle. In this paper obtain significant results and information's for Instructors, teachers and students also focused on how to improve effective usage of this system [1].
Herman Dwi Surjono	This paper discusses the evaluation of student's learning styles in an adaptive e-learning system. This evaluation focuses on the alpha and beta testing. That has been developed by using a LMS Moodle.
Ioannis Dimopoulos	The findings of this case study showed that Learning Analytics in Moodle is a very usable tool that is highly appreciated by teachers and students. Analyzed Moodle related Learning Analytics tools such as GISMO, MOCLog, Excel Pivot Tables and Analytics and Recommendations [2].
Paloma Merello-Gimeneza	The purpose of this paper is to predict the results of gender in significantly associated with Moodle questionnaires in an introductory accounting course. This results show that women are more interested in participating which was obtained by Moodle system [5].
Vania R. Ulbricht, et al.	In this research which facilitate a tool including accessible content in Moodle to the person with visual impairment allowing greater use of a course for the visually impaired [4].
Semih Caliskan et al	This study was carried out to determine the perceptions of teacher on the effectiveness of MOODLE used in flipped education. The results of the analysis were given using percentage, frequency and descriptive analysis methods. The survey consisted of 120 volunteer teachers and it was implemented using SPSS statistical tool [7].



#### IV. CONCLUSION

Nowadays Moodle Learning management system is used to find optimal ways to make learning processes easier. As per researchers perspective Moodle system provide a qualitative data for decision making in educational sector. Moodle system also plays an important role in terms of measuring student's knowledge skills and disciplinary practices. Moodle student's interaction files helps the instructors to preprocess the data, predict learning strategies and summarize the learning framework according to student's interest by applying data mining techniques. Using this Moodle learning system which help the students to emphasize a learning strategies and makes the learning processes easier and more interesting.

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