

AN INVENTIVE PROCESS FOR MOVING TEACHING FROM BLACKBOARD TO LEARNING MANAGEMENT SYSTEM

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Abstract

The findings of the online survey were analysed using correlation, and the results were also correlated with one another. One hundred academics gave their time to take part in the survey. It was found that enabling conditions were the single most critical component in knowing why and how the LMS was utilised, and this was the case for both existing users of the LMS and prospective users of the LMS. This was the case because enabling conditions were the key to understanding why and how the LMS was used. Learning management systems (LMS) from a variety of educational establishments (LMS) have acknowledged that Blackboard is an effective learning management system due to the broad use of this platform. Because student contacts and engagements with Blackboard are an essential process that can increase their learning, it is crucial to interact with Blackboard as well as the resources that are necessary to improve the effectiveness of its utilisation. Inventive Process, Educational Institutions, and Teaching are some.

Paper Identification



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INTRODUCTION

This category encompasses both traditional classroom education as well as hybrid approaches that include both types of learning environments. This can be accomplished in an academic or a professional environment. At the very least, this is how the scientific explanation may be understood. "face-to-face learning" refers to education that is conducted in person between an instructor and a student or between students themselves, whereas "online learning" refers to teaching that is offered via the internet, most frequently utilizing a web-based platform. we will examine both in-person and online training in further detail. This style of education may be delivered in a group context, such as a classroom, or in a more personalized one, such as one-on-one with the assistance of a tutor. Students do some of their coursework in the conventional classroom setting while other coursework is completed online in a blended learning environment. It is anticipated that a learning management system (LMS) will be developed to support learner-centered methods, regardless of the mode of delivery that will eventually be selected. In addition, integrated learning activities will be designed with the course goals as their primary focus. In spite of

this, the reasoning that underpins LMSs has been under intense scrutiny in recent years.

Conventional concepts include putting an emphasis on the function of the instructor and making use of a certain tool for management. These are only two instances of such ideas. In a learning management system, also known as an LMS, the course designer or instructor has the ability to define how the system will function by deciding the nature of the instruction (for instance, the order in which the material is delivered) and the interactions that will take place within the system (i.e., with whom, when, and how learners engage). It is possible to develop and implement learner-centered classes using any one of a number of distinct pedagogical techniques. Open-forum discussions, student-driven project work, and video chats are a few examples of the various methods that fall under this category.

Within an LMS, LCMSs, CMSs, and LOs have the power to adapt to their different surroundings and link with one another to deliver technologies that create an atmosphere that is conducive to learning.

Some of the tasks that an LMS can perform include monitoring a student's progression through a program, hosting both synchronous and asynchronous courseware, centralizing program information and scheduling, serving as a hub for communication, and enabling learning effectiveness assessments.

In the past, students placed their trust in their instructors to give them with information, and courses were often run utilizing the chalk-and-talk instructional approach.

Learning management systems are essentially in charge of the entirety of the educational process. Administration and management of an organization's internal training, education, and development activities

in accordance with a plan that is both targeted and all-encompassing. the explanation of this phrase that I find to be the one that is both the clearest and the most complete.

The Benefits of Using Different Learning Management Systems

As a result of the extensive changes in teaching and learning brought about by the transition from the industrial revolution of the 20th century to the Age of Information of the 21st century, it is essential to differentiate between alternative learning management systems (LMSs) and technology resources that are equivalent to LMSs. This is because of the extensive changes brought about by the shift from the Industrial Revolution of the 20th century to the Age of Information of the 21st century. The Industrial Revolution of the 20th century gave way to the Information Age of the 21st century, which marked the change that took place.

It monitors how far along they are in their coursework, keeps them updated with relevant material on a consistent basis, and provides them with regular opportunities to demonstrate their level of knowledge and skill.

To facilitate better learning for students through LMS technologies,

A total of 179 college students who were participating in a blended learning course and communicating with one another via the Moodle learning management system were polled for the study.

In the future, research may also offer a different perspective on knowing what other resources an LMS provided to help construct an enhanced picture of what constitutes effective e-learning performance.

Because of this, teachers are better able to concentrate on their students and offer assistance to them while they work toward achieving their educational objectives, which, in turn, boosts the students' intrinsic motivation and learning.

There were 530 students from various colleges that signed up to take the online class. educators to make advantage of the vital resources that are provided by the LMS, including as assignments, syllabi, timetables, ideas, discussion forums, pertinent links, and assistance from the instructor.

SOFTWARE DESIGN FOR M-LMS

It is not an easy undertaking to build a technology-enhanced learning and evaluation tool, particularly one that can be utilized in an environment that encourages interactive learning. This is because it is necessary to address a broad variety of problems, ranging from learning theory to software engineering. The reason for this is due to the fact that it is required to tackle these problems. When it comes to designing tools that are capable of effectively handling the issues that are brought up throughout the design process, developers come up against fundamental roadblocks. Yet, the efficiency of a tool is wholly determined by one's capacity to grasp and attend to each of the conditions, in addition to the mental state of the individuals who will be using the tool.

Students have access to a learning and assessment environment that is managed by the computer and is controlled by the teacher thanks to the M-LMS that was built. Over the course of the interaction between the software and the students, various modules that are pre-configured inside the program assess the students' involvement in a variety of tasks, including both solo and group endeavors. In addition to that, it is possible to do summative in addition to formative evaluations.

- The design of the M-layout LMS is depicted in its entirety in figure 1, which may be found here. This strategy is made up of four important parts all working together as a whole. These are referred to as the Learning and Reference Material Design Module (LRMD Module), the Individual Participation Assessment Module (IPAM Module), the Group Participation Assessment Module (GPAM Module), and the Performance Assessment Module (PAM).

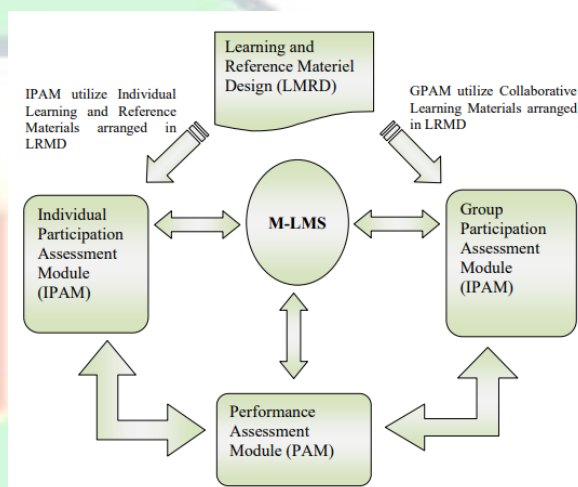


Figure .1 Module (GPAM Module), and the Performance Assessment Module (PAM)

The Individual Participation Assessment Module is a tool that is used to investigate and evaluate the individual behaviors of a student. It is frequently shortened as "IPAM," which stands for "individual participation assessment module." The Individual Performance Assessment Model (IPAM) takes use of the Individual Learning Activities that have been Planned out in LRMD for the Purpose of Evaluating Individual Activities. The Group Participation Assessment Module is a tool that is used to study and evaluate the activities that students participate in when working in groups. It is commonly shortened as GPAM, which stands for the Group Participation Assessment Module. LRMD is the source of the

information that GPAM uses in order to evaluate group activities, and GPAM uses that information to evaluate group activities. The Performance Assessment Module, also referred to as PAM, is a component of the M-LMS that is in charge of giving summative, formative, and unit examinations. Other times, PAM stands for the Performance Assessment Module. Detailed explanations of each of these subsystems that make up the M-LMS are provided in the following paragraphs.

OBJECTIVES

1. To study on learning objects obtained from various learning repositories
2. To study Identifying the most important Blackboard Learning Management System services actually used by faculty members

RESEARCH METHODOLOGY

The creation and verification of a Learning Management System that is web-based was the primary objective of the research project. The creation of the web-based LMS made use of a great deal of different software packages. In a similar manner, many distinct statistical approaches were utilized in order to validate the newly constructed LMS.

The initial portion of the study is focused on the creation of the software. The web-based Learning Management System was developed with the assistance of server programs, web-based programming languages, animation programs, Database Management Systems (DBMS), and elements of web management systems.

The approach for validating the designed multi-level management system (M-LMS) is covered in the second section of the study methodology. For the purpose of finishing up the validation method, experimental research and trend analysis were carried out.

Requirement Analysis

At this point in the study, the investigator was tasked with examining the method and structure of the existing learning and evaluation system in secondary schools all around Delhi. These schools are located in Delhi. The investigator acquired data on the existing learning and assessment process after holding discussions in focus groups with students, professors, and experts in the field who were involved in the topic. Educators from secondary schools and institutions that provide teacher training were present and taking part in the discourse. In order to achieve this objective, the manuals and instructions that are associated with the Continuous and Comprehensive Evaluation (CCE) methodologies have also been investigated.

By basing his or her conclusions on the discussions that took place in focus groups and by reviewing relevant manuals, the researcher was able to determine the components that were necessary for the building of a Moodle-based Learning Management System (M-LMS). The following list contains further information on the M-LMS components that were identified when the customizing process was being carried out:

- Software components for individual involvement in learning
- Software components for participation in group activities related to learning
- Software components for analyzing and storing data.

Components of educational software that allow students to participate in educational activities on their own

Over the course of their education, students engage in a wide range of activities, some of which need them to work independently while others require them to collaborate with their classmates. The evaluation of an

individual's degree of participation in the learning process is a crucial component that is included in both continuous and comprehensive evaluations. So, throughout the process of designing software, the following options or components are required for the management of individual participation in the learning process and for the assessment of this engagement.

Resources Tailored to the Education of Particular Students.

- The ability to calculate a rough estimate of the entire amount of time required to complete the education process.
- Ensure that you keep track of the number of times that you attempted to find a solution to an issue while you were researching it.
- The availability of a checkbox that may be used to indicate when a certain student was present in the lecture hall.
- Students have the option to take part in extracurricular activities as part of their educational experience.
- The ability to assign responsibilities for learning to others and to assist the pursuit of individual goals.
- Components of software that can be utilized in activities of collaborative learning
- The learning process is enhanced significantly by activities done in groups.
- Below is a list of the subcomponents that are necessary to conduct an analysis of the group's engagement in the learning process

Components of software to evaluate group

cohesion and group dynamics

- Components of software to assess leadership and initiation
- Components of software to detect acceptability among group members
- Facilities for online group discussions
- Class blogging features.
- Capabilities for editing within the wiki.
- Components of software for evaluative purposes and data storage

The production of learning management software requires the utilization of methods for both formative and summative assessments at various stages of the process. When students first engage with the application that was produced, a formative assessment module should be automatically launched on their computers. This will allow for more accurate feedback. It is required to administer final tests and analyze the outcomes of those examinations once each specific topic has been covered.

The capacity to save information and then access it later is an additional significant function of learning management software. The functionality known as "storage and retrieval" refers to this feature. It helps to store pertinent data related to the learners and delivers the required feedback to students, teachers, and parents. It also helps to save relevant data connected to the learners. It is also helpful in maintaining a record of significant facts connected to the learners.

During the entirety of the process of developing the Moodle-based learning management system, great thought was given to each of these individual components. Detailed explanations of the designs for

each of these three key components may be found in the next section, which is titled "software design," and is located just below the heading.

DATA ANALYSIS

This study will provide an analysis of the quantifiable data that was gathered and will focus on presenting the findings. Quantitative data, are characterized as data that are constructed on numbers. The goal of performing an analysis of accumulated data is to look for patterns and derive conclusions from the information that has been compiled. It is intended for the respondents themselves to fill out the questionnaires that are used to collect the data that are then analyzed in this chapter. These questionnaires are designed to be filled out by the respondents. The Statistical Package for the Social Sciences (SPSS) was utilized in order to carry out the task of data analysis. As was indicated earlier, the gathering of data and the subsequent analysis were motivated by four distinct goals of the research. The following is a list of some of the objectives that the research aims to achieve:

Table 1. Based on Gender Identity

Gender Identity	Count	Percentage
Male	250	50.0%
Female	250	50.0%

This table shows that out of the 250 identified as male, and 250 identified as female. The percentage column indicates that each gender identity represents 50% of the total sample.

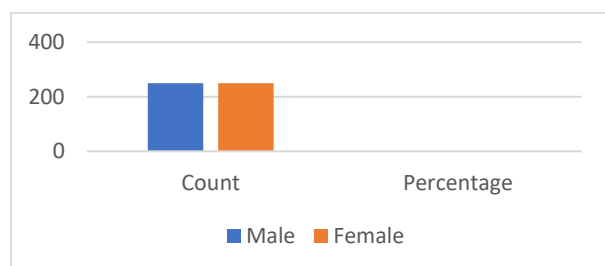


Figure 1 Based on Gender Identity

Table 2. Based on Age Range

Age Range	Count	Percentage
26-35 Years	200	40.0%
36-45 Years	150	30.0%
46-55 Years	150	30.0%

This table shows that out of the sample of 500 individuals, 200 were between the ages of 26-35 years, 150 were between 36-45 years, and 150 were between 46-55 years. The percentage column indicates the proportion of the sample that falls within each age range.

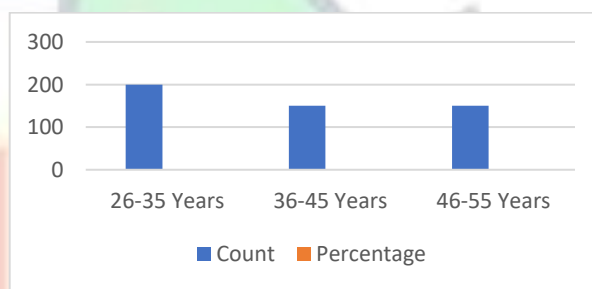


Figure 2 Based on Age Range

Table 3 As an educator or learner, which Learning Management System(s) have you had prior experience using

Prior Experience with LMS	Count	Percentage
Moodle	200	40.0%
Blackboard	150	30.0%
Other	150	30.0%

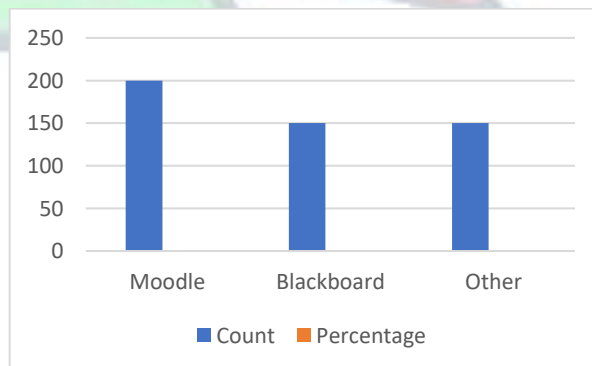


Figure 3 As an educator or learner, which Learning Management System(s) have you had prior experience using

This table shows that out of the sample of 500 individuals, 200 had prior experience using Moodle, 150 had prior experience using Blackboard, and 150 had prior experience using other LMSs. The percentage column indicates the proportion of the sample that had prior experience using each LMS.

Table 4 As a learner, when did you first start implementing the use of Learning Management System (LMS) platforms"

Time Since First Use of LMS Platforms	Number of Learners	Percentage of Learners
Less than 1 year	200	40%
1-2 years	150	30%
More than 2 years	150	30%

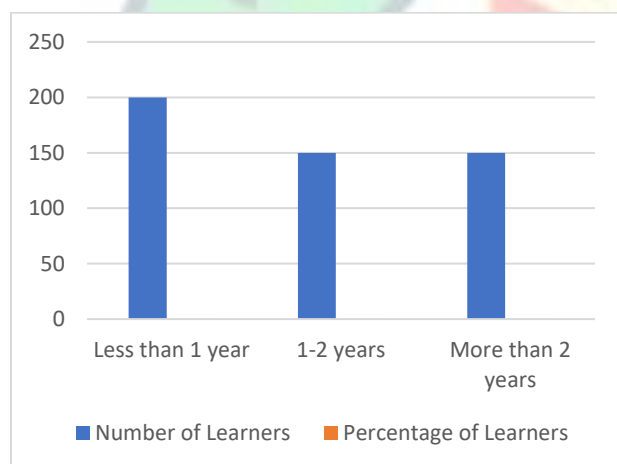


Figure 4 As a learner, when did you first start implementing the use of Learning Management System (LMS) platforms"

CONCLUSION

Learning management systems, often known as LMSs, have arisen as a viable choice in response to the growing need for creative educational solutions that take use of advances in information technology and telecommunications. When using a proprietary learning management system (LMS), the customer is responsible for paying for installation, maintenance, and end-user licensing. The customer is responsible for the installation and upkeep of an open-source learning management system (LMS), but the source code is

openly accessible. Learning management systems, sometimes known as LMSs, provide students with access to a broad variety of tools that are intended to make online learning more manageable. A few of the features include course administration, assessment, tracking of student progress, a gradebook, instant chat, mobile accessibility, and security. The learning management systems (LMSs) of the future will most likely integrate tools and features that assist the delivery of information that is better suited to the requirements of individual learners, that improve the social interactions of students who are enrolled in online courses, and that supply institutional decision-makers with analytics that are more current and relevant.

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