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## Acquaintance of Learning Management System (LMS) Tools among College Teachers

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### Abstract

Learning Management Systems (LMS) have become integral to higher education, enabling digital teaching, assessment, and communication. This study examines the level of acquaintance (familiarity and working knowledge) of LMS tools among college teachers. LMS platforms facilitate content delivery, student engagement, and performance tracking; however, their effectiveness depends on teachers' competence and usage. Research indicates that teachers require adequate training, technical support, and familiarity to fully utilize LMS features. This paper explores teachers' acquaintance with LMS tools, identifies influencing factors, and proposes strategies to enhance effective use. A descriptive survey methodology is adopted, focusing on variables such as ICT competence, training, and institutional support.

**Keywords:** Acquaintance, LMS, Research, Higher Education, ICT.

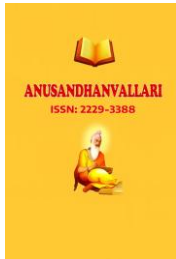
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### Introduction

The integration of technology into education has transformed traditional teaching into a more flexible and learner-centered process. Learning Management Systems (LMS) are software platforms designed to manage, deliver, and track educational activities without time and location constraints. These systems provide tools such as content management, discussion forums, online assessments, and analytics. However, the success of LMS in higher education depends significantly on teachers' acquaintance with these tools. Teachers who are more familiar with LMS tools tend to use them more effectively, thereby enhancing student engagement and learning outcomes.

### Background of the Problem

Despite widespread LMS adoption in higher education institutions, many teachers are not fully acquainted with its tools. Studies show that LMS is often used only for basic functions like uploading materials rather than interactive teaching. Lack of training, inadequate institutional support, and limited ICT skills are key challenges. Research also highlights that teachers' perceptions, attitudes, and technological competence influence LMS adoption and usage. Therefore, understanding the level of acquaintance with LMS tools among college teachers is essential for improving digital teaching practices.



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## Terms and Definitions

### Acquaintance of Learning Management System Tools

Refers to the level of awareness, familiarity, and practical knowledge a teacher possesses in using Learning Management System tools.

### College Teachers

Refers to the faculty members working in Government, Aided and Unaided Arts and Science Colleges situated in Dindigul District.

## Variables of the Study

### Dependent Variable

Acquaintance of Learning Management System Tools

### Independent Variables

1. Gender : Male / Female
2. Subject Specialization : Arts / Science
3. Workshop Attended on LMS Tools : Yes / No
4. Teaching Experience : Upto 5 years / Above 5 years
5. Technical Assistance in the Institution : Yes /No

### Objectives of the Study

1. To determine the level of acquaintance of LMS tools among college teachers.
2. To identify factors influencing teachers' acquaintance with LMS tools in relation to independent variables

### Hypotheses of the Study

1. Acquaintance of LMS Tools among College Teachers is average level.
2. Select independent Variables exerts a significant influence on College Teachers' Acquaintance of Learning Management System Tools.

### Methodology – in – Brief

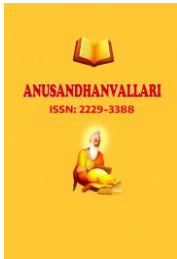
1. Design : Descriptive
2. Method : Normative
3. Technique : Survey

### Sample of the study

A Stratified representative sample of 224 College Teachers constituted from Government, Aided and Unaided Arts and Science Colleges situated in Dindigul District.

### Tools used

- Personal Information Schedule structured by the investigator.
- Acquaintance Scale on Learning Management System Tools constructed by Athavanraj, A & Meenakshi, R (2024).



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## Statistical Treatment

The statistical treatment involved in the study is the test of significance of difference between the means of large independent samples ('t'-test).

## Literature Review

### Learning Management System Tools

A Learning Management System (LMS) is a web-based software platform designed to plan, implement, and assess a specific learning process. LMS tools are the individual features within these platforms that support teaching, learning, communication, and administrative activities in educational institutions. These tools enable educators to create engaging digital learning environments, facilitate interaction, manage assessments, and monitor student progress. Common LMS platforms include Moodle, Google Classroom, Blackboard Learn, Canvas, D2L Brightspace, and Open edX.

### Concept and Role of LMS Tools

Learning Management Systems (LMS) are widely used digital platforms that support teaching, learning, communication, and assessment in higher education. LMS tools include features such as content management, discussion forums, assignments, quizzes, and analytics. These tools enable flexible, accessible, and student-centered learning environments. Studies indicate that LMS platforms provide opportunities for collaboration, interaction, and tracking student performance, thereby enhancing both teaching effectiveness and learning outcomes.

### LMS Tools and Teaching–Learning Process

Research shows that LMS tools play a crucial role in transforming traditional classrooms into digital learning environments. Tools such as:

- ✓ Discussion forums promote interaction
- ✓ Online quizzes support continuous assessment
- ✓ Analytics tools help track student progress

A study on LMS user experience found that students rely heavily on LMS platforms for course delivery and consider them effective for online learning. Similarly, LMS tools facilitate anytime, anywhere learning, making education more flexible and inclusive.

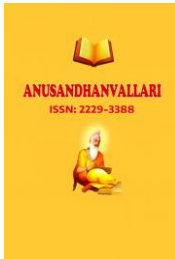
### LMS Tools and Student Engagement

Student engagement is a key outcome influenced by LMS tools. Literature highlights that LMS features such as interactive content, instant feedback, and communication tools significantly improve engagement levels. Systematic reviews show that digital literacy, motivation, and prior experience influence how students interact with LMS tools. Additionally, LMS analytics help teachers identify student participation patterns and improve instructional strategies.

### Factors Influencing LMS Tool Usage

Several studies identify key factors affecting the use of LMS tools:

- ✓ Digital literacy and ICT skills
- ✓ Training and professional development



- ✓ Institutional support
- ✓ Perceived ease of use and usefulness

A thematic literature review (2025) found that faculty readiness, infrastructure, and policy support are critical for successful LMS implementation. These factors directly influence teachers' familiarity and effective use of LMS tools.

### Challenges in Using LMS Tools

- ✓ Lack of training for teachers
- ✓ Technical issues and poor infrastructure
- ✓ Resistance to adopting new technologies
- ✓ Limited use of advanced features

### LMS Tools and Pedagogical Effectiveness

LMS tools support various teaching approaches such as:

- ✓ Blended learning
- ✓ Flipped classrooms
- ✓ Online and distance education

### Emerging Trends in LMS Tools

Recent literature highlights several emerging trends:

- ✓ AI-integrated LMS for adaptive learning
- ✓ Cloud-based LMS for scalability and accessibility
- ✓ Mobile learning integration
- ✓ Data-driven decision making through analytics

### Major LMS Tools and their Functions

#### ❖ Course Content Management

This tool allows instructors to upload, organize, and manage learning materials such as lecture notes, PDFs, presentations, videos, and external links.

#### Key Features

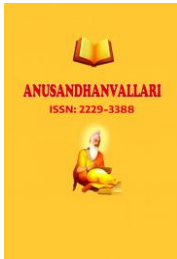
- ✓ File uploads (PDF, PPT, DOC, multimedia)
- ✓ Structured modules or units
- ✓ Content scheduling and version control

#### Educational Benefits

- ✓ Provides centralized access to course materials
- ✓ Supports self-paced learning
- ✓ Enhances organization of course content

#### ❖ Assignment and Submission Tools

Assignment tools enable instructors to create, distribute, collect, and grade student assignments electronically.



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### **Key Features**

- ✓ Online submission
- ✓ Deadline management
- ✓ Rubric-based grading
- ✓ Plagiarism detection integration (e.g., Turnitin)

### **Educational Benefits**

- ✓ Streamlines assessment processes
- ✓ Reduces paperwork
- ✓ Facilitates timely and detailed feedback

### ❖ **Quiz and Assessment Tools**

These tools allow educators to design and administer various forms of assessments, including quizzes, tests, and examinations.

### **Key Features**

- ✓ Multiple question types (MCQ, short answer, essay)
- ✓ Automated grading
- ✓ Question banks and randomization
- ✓ Time limits and security settings

### **Educational Benefits**

- ✓ Provides instant feedback
- ✓ Enhances continuous assessment
- ✓ Saves instructors' time

### ❖ **Mobile Learning Support**

Modern LMS platforms offer mobile applications, allowing users to access course materials anytime and anywhere.

### **Key Features**

- ✓ Mobile-friendly interfaces
- ✓ Push notifications
- ✓ Offline content access

### **Educational Benefits**

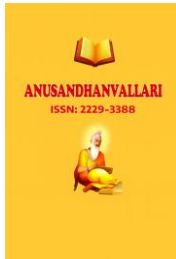
- ✓ Enhances accessibility
- ✓ Supports flexible learning
- ✓ Increases student engagement

### ❖ **Personalization and Adaptive Learning**

Personalization tools tailor learning experiences based on individual student needs and performance.

### **Key Features**

- ✓ Conditional content release



- ✓ Adaptive assessments
- ✓ Competency-based learning paths

#### Educational Benefits:

- ✓ Addresses diverse learning styles
- ✓ Improves learning outcomes
- ✓ Encourages self-directed learning

#### ❖ Security and Administration Tools

Administrative tools ensure secure and efficient management of courses and users.

#### Key Features

- ✓ User authentication and role management
- ✓ Data privacy and backup
- ✓ Integration with Student Information Systems (SIS)

#### Educational Benefits

- ✓ Protects sensitive information
- ✓ Streamlines institutional management
- ✓ Ensures system reliability

#### Related Studies

- **Simon, P. D., Jiang, J., Fryer, L. K., & King, R. B. (2025).** An assessment of learning management system use in higher education: Perspectives from teachers and students. *Technology, Knowledge and Learning*, 30, 741–767. This study examined LMS usage among teachers and students in higher education. The findings revealed that although LMS platforms provide various tools, their effective use depends on teachers' familiarity and training. The study emphasized that differences in LMS usage exist across departments and highlighted the need for targeted support and professional development to improve familiarity and integration.
- **Inoncillo, F. A. (2024).** Perceived learning management system effectiveness, teacher's self-efficacy, and work engagement: Groundwork for an upskilling plan. *International Journal of Research and Scientific Innovation*, 11(3), 560–584. This study investigated LMS effectiveness and teachers' self-efficacy using a descriptive survey. The results showed that teachers with higher self-efficacy demonstrated better familiarity and engagement with LMS tools. The study suggests that training programs enhance teachers' acquaintance and improve LMS utilization.
- **Koesrini, J., Suhartono, R. H. S., & Arafah, M. (2025).** Teachers' perceptions of the use of learning management systems in improving teaching effectiveness. *Asian Journal of Applied Education*, 4(4), 621–634. This mixed-method study explored teachers' perceptions of LMS use in teaching. The findings indicated that LMS tools improve planning, implementation, and evaluation of teaching. However, effective use depends on teachers' familiarity, motivation, and prior experience with LMS tools.
- **Jarry, P. D. (2025).** The level of adoption and use of learning management systems among teachers and students in higher educational institutions. *International Journal of Research and Innovation in Social Science*, 9(11), 7510–7517. This study examined LMS adoption in higher education institutions using survey and statistical analysis. The results showed moderate levels of LMS usage among teachers and emphasized that familiarity with LMS tools is influenced by technological competence and institutional support.

- **Sanchez, L., Penarreta, J., & Soria Poma, X. (2024).** Learning management systems for higher education: A brief comparison. *Discover Education*, 3(58). This study compared multiple LMS platforms and highlighted the importance of tool usability and functionality in teaching. It emphasized that teachers' acquaintance with LMS features is essential for selecting and effectively using appropriate platforms.
- **Balkaya, S., & Akkucuk, U. (2021).** Adoption and use of learning management systems in education: The role of playfulness and self-management. *Sustainability*, 13(3), 1127. This study analyzed factors influencing LMS adoption and usage. It found that teachers' attitudes, self-management skills, and perceived usefulness significantly impact their familiarity and use of LMS tools.
- **Al-Nuaimi, M. N., & Al-Emran, M. (2021).** Learning management systems and technology acceptance models: A systematic review. *Education and Information Technologies*, 26, 5499–5533. This systematic review identified key determinants of LMS adoption, including perceived ease of use, usefulness, and user competence. The study highlights that teachers' familiarity with LMS tools is a critical factor influencing acceptance and effective usage.
- **Laursen, R., & Weiss, F. (2025).** The role of school leaders' transformational leadership practices during LMS implementation. *Educational Management Administration & Leadership*. This study explored how leadership influences LMS adoption. The findings showed that institutional leadership and support significantly affect teachers' familiarity and willingness to use LMS tools effectively.

#### Data Analysis and Interpretations

The empirical average value of College Teachers Acquaintance of LMS tools is 18.46 while the theoretical average is 20 only. Hence, the College Teachers Acquaintance of LMS tools is found to be below average level. In other words, College Teachers possess low Acquaintance of Learning Management System tools in Dindigul District.

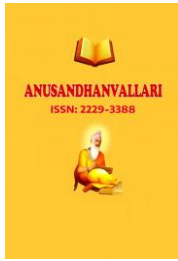
**TABLE 1: STATISTICS OF ACQUAINTANCE OF LEARNING MANAGEMENT SYSTEM TOOLS AND GENDER - WISE**

Gender	N	M	SD	't' - Value	Significance at 0.05 level
Male	111	17.60	10.65	1.128	Not Significant
Female	131	19.32	12.04		

The obtained 't' value 1.128 is lesser than the table value 1.96 at 0.05 level of significance. This shows that there is no significant difference between male and female College Teachers in their Acquaintance of LMS tools among college teachers.

**TABLE 2: STATISTICS OF ACQUAINTANCE OF LEARNING MANAGEMENT SYSTEM TOOL AND SUBJECT SPECIALIZATION - WISE**

Subject Specialization	N	M	SD	't' - Value	Significance at 0.05 level
Arts	128	19.17	10.96	1.068	Not Significant
Science	196	17.53	11.91		



The obtained 't' value 1.068 is lower than the table value 1.96 at 0.05 level of significance. This shows that there is no significant difference in Acquaintance of LMS tools between college teachers those who are working in Arts discipline and those who are working in science discipline.

**TABLE 3: STATISTICS OF ACQUAINTANCE OF LEARNING MANAGEMENT SYSTEM TOOLS AND WORKSHOP ATTENDED ON LMS TOOLS - WISE**

Workshop Attended on LMS Tools	N	M	SD	't' - Value	Significance at 0.05 level
Yes	141	17.58	11.42	1.525	Not Significant
No	83	19.98	11.227		

The obtained 't' value 1.525 is lower than the table value 1.96 at 0.05 level of significance. This shows that there is no significant difference in Acquaintance of LMS tools between college teachers those who attended the Workshop on LMS Tools and those who are not attended the Workshop on LMS Tools.

**TABLE 4: STATISTICS OF ACQUAINTANCE OF LEARNING MANAGEMENT SYSTEM TOOLS AND TEACHING EXPERIENCE - WISE**

Teaching Experience	N	M	SD	't' - Value	Significance at 0.05 level
Upto 5 Years	134	19.70	11.75	1.991	Significant
Above 5 Years	90	16.63	10.60		

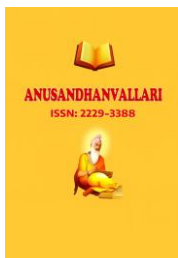
The obtained 't' value 1.991 is higher than the table value 1.96 at 0.05 level of significance. This shows that there is a significant difference in Acquaintance of LMS tools between the college teachers those whose teaching experience is upto 5 years and those whose teaching experience is above 5 years.

**Comment:**

It is inferred from the above finding that, the college teachers those whose teaching experience is upto 5 years possess high Acquaintance of LMS tools than those whose teaching experience is above 5 years.

**TABLE 3: STATISTICS OF ACQUAINTANCE OF LEARNING MANAGEMENT SYSTEM TOOLS AND TECHNICAL ASSISTANCE IN THE INSTITUTION - WISE**

Technical Assistance in the Institution	N	M	SD	't' - Value	Significance at 0.05 level
Yes	133	17.70	10.66	1.225	Not Significant
No	91	19.59	12.33		



The obtained 't' value 1.225 is lower than the table value 1.96 at 0.05 level of significance. This shows that there is no significant difference in Acquaintance of LMS tools among college teachers in terms of technical assistance provided from their Institution.

### Hypotheses Verification

#### 1. Acquaintance of LMS Tools among College Teachers is average level.

1. The empirical average value of College Teachers Acquaintance of LMS tools is 18.46 while the theoretical average is 20 only. Hence, the College Teachers Acquaintance of LMS tools is found to be below average level.

**Hence the hypothesis 1 is rejected**

#### 2. Each of the independent variables involved in this study exerts significant influence on acquaintance of LMS tools among college teachers

Out of Five independent variables, Teaching Experience alone exerts a significant influence on Acquaintance of LMS tools among college teachers in Dindigul District.

**Hence the hypothesis is Minimally accepted**

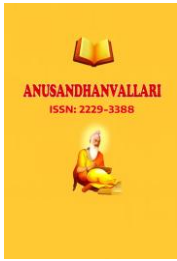
### Conclusions

The most important Conclusions emerged out the present study are listed below:

1. Acquaintance of LMS tools among college teachers in Dindigul District is found below average level.
2. Acquaintance of LMS tools among college teachers in Dindigul District found dependent upon.
  - Teaching Experience
3. Acquaintance of LMS tools among college teachers in Dindigul District is found independent upon.
  - Gender
  - Subject Specialization
  - Workshop Attended on LMS Tools
  - Technical Assistance in the Institution

### Educational Implications

- Organize hands-on training workshops focusing on practical LMS applications rather than theoretical sessions.
- Provide tiered training (beginner, intermediate, and advanced) to address varying levels of digital competence.
- Encourage certification programs in digital pedagogy to enhance teachers' confidence and proficiency.
- Workshops should be practice-oriented, allowing teachers to design real courses, quizzes, and assessments.
- Follow-up sessions and mentoring should be implemented to ensure sustained learning.
- Institutions should adopt blended professional development models, combining face-to-face and online training.
- Senior faculty members may require targeted support to adapt to digital teaching environments.
- Peer mentoring programs can be established where younger, digitally proficient teachers guide experienced faculty.
- Institutions should foster a collaborative learning culture to bridge the digital divide among staff.



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- Universities and teacher training institutions should include digital pedagogy and LMS competencies in their curricula.
  - Mandatory orientation programs on LMS tools should be provided for newly recruited faculty members.
  - Develop institutional policies mandating the effective use of LMS for teaching, assessment, and communication.
  - Establish dedicated e-learning support centers to assist faculty.
  - Provide incentives and recognition for innovative and effective use of LMS tools.
  - Institutions should promote a campus-wide digital culture encouraging all faculty members to integrate LMS tools into their teaching.
  - Interdisciplinary collaboration should be encouraged to share best practices in LMS usage.
  - Regular seminars and communities of practice can facilitate knowledge exchange.
  - Formulate state and national policies promoting digital education.
  - Allocate funding for LMS infrastructure and training.
  - Establish standards and benchmarks for LMS competency among college teachers.
  - Encourage research and innovation in educational technology.

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