



## Exploring the Role of LMS in Motivating Students in Open Distance Learning

### Dermatology

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### ABSTRACT

Open Distance Learning (ODL) is the fastest growing segment of higher education. ODL via web delivery is typically delivered by enterprise wide Learning Management Systems (LMS) which have become integral to university teaching-learning environments. LMS are software systems that synthesize the functionality of computer-mediated communications software and online methods of delivering course activities and materials. LMS are at the forefront of online technologies making a serious impression on patterns of learning and teaching in Higher Education. LMS are being used for presenting online or technology-enhanced classes and they influence pedagogy by presenting default formats that are designed to guide instructors toward creating courses in certain ways. If LMS are affecting pedagogy, then they are likely to be affecting student study habits, learning and motivation. The current research study aims at exploring the role of LMS in motivating students to learn in an ODL Environment.

### KEYWORDS:

Motivation, ODL, LMS

### INTRODUCTION

Educational institutions have invested heavily in Learning Management Systems (LMS) over the last decade. In particular, colleges and universities have purchased LMS to provide their students with online or blended-learning courses. Not only have the number of LMS installations increased, but the number of tools provided by LMS vendors and third parties have also increased. These tools allow faculty to manage their courses and to quickly publish course content. Some studies have reported that students, who use LMS, have higher engagement, motivation and academic performance (Beer, Clark, & Jones, 2010);

Student engagement is critical to student motivation during the learning process. Technology can be utilized to create a motivating classroom environment where students are engaged in learning. An environment where technology is used in innovative ways leads to improved learning and teaching (Beeland, 2002). In order to evaluate the effectiveness of LMS, one needs to compare student motivation in their learning environment. i.e traditional vis-à-vis LMS. Also, there are no in-depth studies into finding the levels of motivation like attention, relevance, confidence and satisfaction, of students that study in these two environments. The review of literature and related research indicates that these two aspects are an integral part of student learning.

### LMS AS AN ODL PLATFORM

The infusion of Information Communication Technologies (ICTs) into learning and teaching has occurred in all sectors of education. It has changed the nature of face-to-face (f2f) teaching and enabled the rapid growth of blended and online courses. ICTs offer new opportunities but also new challenges for both instructors and students. As the number of online courses grows it is essential that we have an understanding of the roles and practices of an effective online teacher (Laurillard, 2002). With the growth of the Internet, ODL has become an attractive option for expanding the educational opportunities available to students. Factors such as accessibility to materials, other students, instructors, control of time, and cost can influence individuals' perceptions of distance education (Rivera & Rice, 2002).

LMS is a technology used to plan, implement, and assess a learning process. Broadly we can classify the stakeholders of the LMS into Learner, Instructor, Course Designer and Administrator. The Learner needs to register for the various courses, learn from the required learning material provided by the LMS, undergo tests and practical's,

complete assignments, etc. LMS provides an Instructor with a way to deliver content, monitor student participation, and assesses student performance. In order to do this an Instructor need to organize or plan a course based on prescribed syllabus and he/ she has to establish a course calendar to monitor student progress. LMS provides Course Designer with a way to create course content by supporting various content creation facilities. LMS may also provide learners with the ability to use interactive features such as threaded discussions, audio/video conferencing and discussion forums. LMSs are at the forefront of online technologies making a serious impression on patterns of learning and teaching in higher education. According to Schar and Krueger (2000), an LMS must be capable of handling various delivery modes and automate the cumbersome process of learner enrollment, registration, records, transcripts, schedules and reports, and it must incorporate evaluation, assessment and testing capabilities.

### USE OF LMS TO PROVIDE A MOTIVATING ENVIRONMENT TO LEARN

Student-centered instruction can foster improvements in the intrinsic motivation of students if properly designed and implemented (Phillips, 2007). Principles to remember in the design process include using flexible deadlines, engaging in less overt supervision in order to increase student independence, promoting a safe and risk-friendly learning environment, and providing students with choice and control over instruction. Problem-solving activities can be some of the most effective methods for using student-centered instruction to enhance intrinsic motivation. Problem-solving can be combined with other student-centered methods through the use of simulations. Simulations have been found to lead to engaging learning experiences, but students need time to reflect upon their learning experiences in order to achieve improved academic outcomes to accompany the motivational benefits. This indicates the importance of quality instructional design for improving student learning outcomes (Brophy, 2010). Whether it is the Keller ARCS (Attention, Relevance, Confidence, and Satisfaction) model (Keller, 1983) or another method for designing instruction, educators must use instructional design methodology effectively in order to enhance student motivation.

The aim is to create LMS centered on students as learners and a belief that they learn more from what they do and think about rather than from what they are told. If the aim is to offer new learning opportunities, or to improve the way in which current learning activities are implemented, then the overall effectiveness of LMS is of

paramount concern, not whether they are more effective with or without computers.

### MEASUREMENT OF MOTIVATION IN ANLMS

Assessment of learners' motivation in online environments has been a challenge for both researchers and instructors, and the reason for it is twofold: motivation is an important factor affecting the learning process and explaining individual differences, however it is a factor difficult to evaluate without direct contact with the learner. Measuring the online learner's motivation has a major role in the instruction-learning cycle. Monitoring the learner's motivation might enable the instructor to interfere when needed (e.g., when student's motivation is decreasing), and should help in developing of intelligent tutoring systems which react not only to the learner's cognitive behavior but also to her or his affective situation. The overall objective of this underlying approach is to increase the efficiency of the learning process.

Keller, has developed a motivational design model that is grounded in expectancy-value theory, reinforcement theory and cognitive evaluation theory. These theories are integrated by means of a systems analysis of when and how each explains the relationship among effort, performance and satisfaction. This model contains four categories of motivational variables ie. ARCS. These were derived from a comprehensive review and synthesis of motivational concepts and research studies. The ARCS model is unique among current motivational design models in that it is a problem solving model which helps a designer identify and solve specific motivational problems related to the appeal of instruction. It includes strategies related to the design of materials, style of teaching and overall design of a course. It has been validated in numerous studies with all education levels and in many different cultures.

Given below are the four factors (Keller, 1988) that could motivate the student in learning:

- (a) Attention: Capture the learners' attention at the start of the lesson and maintain it throughout the lesson.
- (b) Relevance: Inform learners' of the importance of the lesson and how taking the lesson could benefit them.
- (c) Confidence: Use strategies such as designing for success and informing learners of the lesson expectations.
- (d) Satisfaction: Provide feedback on performance and allow learners to apply what they learn in real-life situations.

Assessment of learners' motivation in online environments has been a challenge for both researchers and instructors, and the reason for it is twofold: motivation is an important factor affecting the learning process and explaining individual differences, however it is a factor difficult to evaluate without direct contact with the learner. Motivational patterns, in addition to ability, may influence the way people learn: whether they seek or avoid challenges, persist or withdraw upon difficulties, or whether they use and develop their skills effectively. Different motivational patterns relate to different aspects of the learning process, e.g., achievement goals (performance or mastery), time spent on tasks, performance (Hershkovitz, & Nachmias, 2008; Singh, Granville, & Dika, 2002).

Dawson, Macfadyen and Lockyer, (2009) in their case study explored drivers of student motivation. The results suggest that there is a significant correlation between student achievement orientation and participation in discussion forums. Students reporting a strong learning orientation were more inclined to utilize the unit's 'learning forum'. Conversely, students tending towards a performance orientation were more prone to use the 'administration forum'. The findings and data harvesting methodology employed represent a novel, scalable and automated approach for rapidly identifying the drivers of student learning motivation.

The more students are motivated to learn, the more likely it is that they will be successful in their efforts. In LMS there are Resources/Utilities like Calendar, Journal, Email, Chat, and Quiz with feedback providing knowledge of correct responses and this is found to be superior to programs that require students to answer until they are correct. LMS that includes embedded cognitive strategies provides students with a learning advantage. Most of the above mentioned characteristics are offered in LMS environment. The researcher has framed a questionnaire incorporating Keller ARCS scale in order to assess and evaluate this component.

### CONCLUSIONS

The results of the analysis of literature and related studies indicate that students find course Websites to be helpful resources that enhance the understanding of course content, and that these Websites will continue to have an impact on higher education in the future. The examination of individual e-learning components indicated that students responded favorably to most available features. As colleges focus on helping all students achieve high standards, however, reaching out to disengaged and discouraged learners becomes increasingly important. Clearly, students who are not motivated to engage in learning are unlikely to succeed. Educators can and do affect students' level of engagement in learning. Simply recognizing this power is a critical step in motivating students. By further recognizing how a healthy self-esteem is the foundation for success, which in turn fosters motivation in students in ODL Environments.

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