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Review Based Study On E-Learning In Higher Education In View Of COVID19

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Abstract: E-Learning in Higher Education is one of the major concern area which is recognized as an important factor, significantly contributing to the progress of an individual, social change and economic growth which leads to the holistic development of the nation. LMS has a wide range of products and services which can cater to the need of 21st century's learners and instructors. The popularity of LMS among the universities is very high, so the changing needs of stakeholder in education made a pathway to move towards more virtual learning which emphasizing to save time and money and effective delivery of instruction. As stated earlier Learning Management System is a software based application which help us to administrate, document, track, report and evaluate the teaching learning process, training programs, virtual classes, and e-Learning programs. Functions of Learning Management System can be broadly divided into 4 major parts and then sub parts will be discussed under the main category: Stakeholder Functionality-In this part the participant or stakeholder has their own space by which they are able to access the following services: View the status of course and completion of courses ; Facility to print or view the certificate- Content or Course Management; Manage, add or delete the content of the course or modules. Learning Management System has different categories depending upon their usage and accessibility.

Key words : E-Learning; LMS; Course Management; Accessibility; Teaching Learning Process;

INTRODUCTION

Popularity of major LMS in education has been described .Different LMS according to their categories: Open Source Learning Management System-The open source LMSs are learning management platforms which are available under a public free license, providing users the rights to use, to change, to study, to create and to distribute the results, free of charge, to anyone and for any purpose.



MOODLE, SAKAY etc. are most popular name in this category :: SAAS/Cloud Based Learning Management System.Cloud based learning management comes with cloud computing features and deliver the education online to any student, at anytime and anywhere around the world, the only must requirements to be fulfilled being the existence of an Internet connection and of a tool (i.e., computer, tablet, smartphone). Digital Chalk, Docebo SaaS LMS, TalentLMS, Firmwater LMS, Litmos LMS, etc. are some famous names in this category :: Proprietary Learning Management

System-These systems have been licensed by their developers under the legal rights belonging to the copyright owner/s. Design2Leran, ANGEL (property of Blackboard Inc.) are the popular one in this category. By observing the user pattern of LMS we can say that here are the three stakeholders: The Learner- are the main users of LMS and they are the first consumer of the services. The Instructor- instructor usages LMS to guide, supervise, assist and evaluate learners. The Administrator- keep the proper flow of operation of services and its users. The most attractive feature of e-learning is that it is student-centered. It accommodates individual preferences and needs. At the same time, it empowers students of various backgrounds to have equal access to the best resources and referral material, lecture sessions, tutoring, and experienced teachers.

USE OF TECHNOLOGY

Most professionals interested in the use of technology in education understand the importance of an e-learning course site, whether the course is taught completely online, or in a hybrid environment where the instructor also has some face-to-face interaction with students. Today, e-learning companies offer a variety of e-learning services such as building and designing training courses, offering web-based programs for learning, online learning, and content management. The services and format of e-learning allow for the

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following listed benefits, to name only a few. First, e-learning allows any user to host live classes on any topic. A high school chemistry teacher in California can schedule his/her own class with live video and audio feeds and have a global student audience. Second, the format allows students to learn easily for the standardized tests by downloading the study material they want, rather than paying hefty bills to tuitions. Third, it also allows the students to improve their scores in the standardized tests, by taking as many tests as they want. Fourth, the e-learning format allows students to speed up and slow down as they deem necessary. The traditional educational delivery system in universities and colleges has for a relatively long period of time been a classroom with a professor giving lecture to students and the students listening and sometimes taking notes. Communication between the professor and students has been thought of to be a vital learning component in this delivery method. Innovations in educational delivery mechanisms such as interactive and reflective schools of thought have, however, challenged the traditional approaches to education .



PROGRESS IN IT

Progress in information technology has enabled new educational delivery methods such as distance learning and e-Learning. As a result of this, many universities and colleges have joined this innovative e-Learning world. This has led to the need for pedagogical and technical knowledge to teach using the Internet, and this knowledge is gradually becoming a core competence for many teachers as well as students. Given the propagation of electronic supported teaching, the crucial question here is that how and to what extent e- Learning is changing the quality of teaching and learning. E-Learning has entered the education as well as the corporate world in a major way and it also complements the traditional delivery methods. It has definitely facilitated the conventionally complex paradigms of education like adult learning and distance learning. E-learning can be viewed as an alternative to the face-to-face teaching method or as a complement to it. Elearning usually allows the student a greater choice as well as responsibility for their own learning . E-learning can change the

methods of learning and has the promise to overcome the barriers of time, distance, and economics. E-learning is an invaluable gift to the education sector. It has completely removed the distance barrier and made learning a convenient and pleasant affair. Studies indicate that e-Learning can help increase student engagement, motivation and attendance, which are the significant . There are number of research studies to suggest that e-Learning can definitely improve the marks scored by students. It is found that classes that incorporate use of software and computers while teaching has significant effect on marks even without taking online examination. Secondly, the marks obtained by those students who use multimedia in the classroom even if no other software is being used and the students correspond with the trainer through mail and appear for on line examination, is higher than the students for whom multimedia was not used. Thirdly, the marks scored by the students was the best who were neither taught through books in the classroom nor with the help of physical models but instead were taught with the help of a software and the students communicated with the instructor on mail. Largely, the findings demonstrate that teaching without the use of books gives better results and also improves the performance of the students. It is found that students who have used dictation web based e- learning programs had made better progress in dictation as compared to students who have used the traditional method. So, the conclusion which can be drawn is that the application of eLearning as a knowledge device causes students learning quality improvement in dictation.



USE OF ONLINE LEARNING PROGRAMS

The use of on-line learning programs enhances the cognitive and psychomotor skills of students. The use of electronic learning improved the students understanding of concepts, their problem solving and calculating skills, and computer operational skills as well. Web-based network has provided effortless and straightforward access to educational resources for learners everywhere and at every time,

even in far-flung areas by creating home schools, and thus has caused educational justice. This multimedia environment and the opportunity of converting data in the form of sound, images, text, video has generated interest and enthusiasm in learners. The other benefits of eLearning are peer involvement, autonomous learning, interactive, fast response. To sum it up by using this method, teachers are now not only source of knowledge

CONCLUSIONS

The interesting and enlightening finding that has come up is that female students are equally effectively using e-Learning when compared to their male counterparts. There are several reasons that could be attributed to this trend such as more dedication towards learning and achieving a higher grade in females. It can also be due to the fact that nowadays in developing countries like India females are getting almost equal opportunities for education and technology usage. The concept Learning Management System provides a very authentic and structured experience of virtual learning. Without Learning Management System it would be most difficult to plan, implement and deliver the instruction and training in an effective way. Though LMS is a web-based system, the use of the LMS is not limited to online classes only. LMS has been widely used and will continue to grow in future in higher education institutions and Industries. It does not limit to the online environment, but also improve and integrate into the hybrid and web-enhanced teaching and learning environment. The uses of LMS to facilitate interaction enhance learning abilities and support higher-order learning, including problem solving, critical thinking, and collaboration skills. E-learning is a large and growing market with great potential in higher education. Content and technology providers should provide high quality, interoperable solutions that consider learning principles. Accreditation bodies should provide and enforce clear guidelines for this new form of learning delivery. The development of new information technologies in the 21st century is expanding the range of information resources; it is also creating conditions for the formation of a global informational, educational and cultural space; and therefore changes occur in the education system. The high results cannot be achieved in the learning and the educational process without integrating new information and communication technologies in the education system. The use of enormous integrated set of computer and internet tools and resources allows us to achieve more efficient and effective training. The students are no longer passive consumers of the educational programs and services, but active participants in the educational process. Their skills and

competencies to work effectively with digital technologies are prerequisite for successful and responsible solving and presentation of scientific problems and cases.

REFERENCES

- [1] Alexander, S. (2001). E-learning developments and experiences, MCB University Press, Volume 43, No. 4/5.
- [2] Allen, I. Elaine, and Jeff Seaman. "Growing by degrees: Online education in the United States, 2005." Sloan Consortium (NJ1) (2006).
- [3] Bailey, Gerald D., ed. Computer-based integrated learning systems. Educational Technology, 1993.
- [4] Barker, P. (2000). Designing Teaching Webs: Advantages, Problems and Pitfalls. Educational Multimedia.
- [5] Barron, Tom (2000). e-learning - A Review of Literature. The future of digital learning. e-learning, Vol. 1, No. 2.
- [6] Becker, Henry Jay. "Running to catch a moving train: Schools and information technologies." Theory into practice 37.1 (1998): 20-30.
- [7] Begicevic N. & Divjak B. (2006). Validation of theoretical model for decision making about e-learning implementation. J Inform Organ Sci Fac Organ Intonn Univ Zagreb 30(2): 171-185
- [8] Berk, J. (2003). Learning measurement: it's not how much you train, but how well. [http://www.elearningguild.com/pdf/2/110303mgth\[1\].pdf](http://www.elearningguild.com/pdf/2/110303mgth[1].pdf) (accessed 17th February 2018)
- [9] Bonk, C. (2002). Research related to the effectiveness of elearning and collaborative tools. http://www.trainingshare.com/download/australia/TAFE_sydney/tools.ppt (accessed 17th February 2018)
- [10] Bonk, Curtis Jay, and Charles Ray Graham. "The handbook of blended learning." San Francisco, CA: Pfeiffer (2006).
- [11] Boumedyen, Kaneez, Rafael Victor, Birkut-ul- Mauz, Nizwa (2011). E-Learning: An effective pedagogical tool for learning. International journal of innovative technology & creative engineering, vol.1 no.4.
- [12] Brush, Thomas A., et al. "Design and delivery of integrated learning systems: Their impact on student achievement and

- attitudes." *Journal of Educational Computing Research* 21.4 (1999): 475-486.
- [13] Dr S Sridhar* et al. (IJTR) INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND RESEARCH Volume No.8, Issue No.2, February – March 2020, 9501-9505.
- [14] Buckley, M. (2008). Evaluation of Classroom-Based, WebEnhanced for students. *The Journal of teacher education*.
- [15] Caley L., Reid (2002). Core Values - Global Market: Designing a Learning Programme for Clinical Research Associate Tutors. University of Cambridge Programme for Industry.
- [16] Cheung, Vivian G., et al. "Making and reading microarrays." *Nature genetics* 21 (1999): 15-19.
- [17] Chickering, Arthur W., and Zelda F. Gamson. "Seven principles for good practice in undergraduate education." *AAHE bulletin* 3 (1987): 7.
- [18] Collis, B (1998). New didactics for university instruction: why and how? *Computers & Education*.
- [19] Douglass, John. (2005a). All Globalization is Local: Countervailing Forces and the
- [20] Drucker, P. (2005). Need to Know: Integrating e-Learning with High Velocity Value Chains, A Delphi Group White paper, http://www.delphigroup.com/pubs/whitepapers/200012_13-e-learningwp.pdf (accessed 29th February 2018).
- [21] Ellis, Ryann K. "Field guide to learning management systems." *ASTD Learning Circuits* (2009): 2009.
- [22] Epping, Ronald J. "Innovative Use of Blackboard [R] to Assess Laboratory Skills." *Journal of Learning Design* 3.3 (2010): 32-36.
- [23] Figueira, E. (2003). Evaluating the effectiveness of eLearning strategies for SMEs. http://www.theknownet.com/ict_smes_seminars/papers/Figueira.html (accessed 19th March 2018).
- [24] Forouzes, Milad, and Milad Darvish. "Characteristics of Learning Management System (LMS) and Its Role in Education of Electronics." *Conference proceedings of "eLearning and Software for Education"(eLSE)*. No. 01. 2012.
- [25] Goodridge, E. (2002). e-Learning struggles to make the grade. http://www.informationweek.com/story/IWK20020509S_0011 (accessed 29th February 2018)
- [26] Goyal S, (2012). E-Learning: Future of Education, *Journal of Education and Learning*. Vol.6 (2) pp. 239-242.
- [27] <http://services.bepress.com/eci/etechnologies/24> (accessed 27th March 2018).
- [28] Influence on Higher Education Markets. *European Journal of Open, Distance and eLearning EURODL*.
- [29] Janicki, T., & Steinberg, G. (2003). Evaluation of a computer-Supported Learning System, *Decision Sciences the Journal of Innovative Education*, 1, 2 (Sept.).
- [30] Kiboss, J. K., & Ogunniyi, M. B. (2003). Influence of a computer-based intervention on students' conceptions of measurement in secondary school physics. *Themes in Education*, 4, 203-217.
- [31] Kiboss, J. K., & Ogunniyi, M. B. (2005), Learning outcomes of first year secondary students in a computer-augmented physics program on measurement. *Learning, Media and Technology*, 30.
- [32] Kurse, K. (2004a). The benefits and drawbacks of elearning. http://www.elearningguru.com/articles/art1_3.htm (accessed 27th February 2018)
- [33] Kurse, K. (2004b). The magic of learner motivation: The ARCS model. http://www.elearningguru.com/articles/art3_5.htm (accessed 27th February 2018)
- [34] Landsberger, Joe. "Thoughts on Convergence in Instructional Settings..." *TechTrends* 48.3 (2004): 6.
- [35] McCombs, Barbara L., and Jo Sue Whisler. *The Learner-Centered Classroom and School: Strategies for Increasing Student Motivation and Achievement*. The JosseyBass Education Series. Jossey-Bass Inc., Publishers, 350 Sansome St., San Francisco, CA 94104, 1997.
- [36] Mohamed, A. (2004). *Foundations of educational theory for online learning. Theory and Practice of Online Learning*, AB, Canada: Athabasca University.
- [37] Morris, John. "Features and functions are merely trifles in the selection of a course management system." *THE Journal*

- (Technological Horizons In Education)
31.11 (2004): 24.
- [38] Olds, B. M. (2004). Effective Strategies to Assess the Impact of e-Learning.
- [39] Patchava. RamyaSree, Tammisetty. Bhuvanewari et.al, International Journal of Recent Technology and Engineering
- [40] Dr S Sridhar* et al. (IJTR) INTERNATIONAL JOURNAL OF INNOVATIVE TECHNOLOGY AND RESEARCH Volume No.8, Issue No.2, February – March 2020, 9501-9505.
- [41] Reigeluth, Charles M. "Educational standards." Phi Delta Kappan 79.3 (1997): 202-206.
- [42] Reigeluth, Charles M., and Robert J. Garfinkle. "Envisioning a new system of education." Systemic change in education (1994): 59-70.
- [43] Reigeluth, Charles M., and Robert J. Garfinkle. Systemic change in education. Educational Technology, 1994.
- [44] Ritzel, L. (2002). E-Learning is learning. <http://www.prasena.com/public/eLearning%20is%20Learning.doc> (accessed 27th March 2018).
- [45] Schlechty, Phillip C. Schools for the Twenty-First Century: Leadership Imperatives for Educational Reform. The Jossey-Bass Education Series. JosseyBass Inc., Publishers, 989 Market St., San Francisco, CA 94103, 1990.
- [46] Senge, Peter M., et al. Schools that learn (updated and revised): A fifth discipline fieldbook for educators, parents, and everyone who cares about education. Crown Business, 2012.
- [47] Shank, P. (2003). Showing the value of eLearning. http://www.elearningguild.com/pdf/1/values_survey_results_-_final.pdf (accessed 17th February 2018)
- [48] Sherry, M. "Integrated Learning Systems: What May We Expect in the Future?" In G. D. Bailey (Ed.), Computer-based Integrated Learning Systems. Englewood Cliffs, NJ: Educational Technology Publications, (1993).
- [49] Smaldino, S.E., Russell, J.D., et al. "Instructional Technology and Media for learning" (8th ed). Upper Saddle River: Pearson Education, (2005).
- [50] Sonwalkar, N. (2001). A New Methodology for Evaluation: The Pedagogical Rating of Online Courses. <http://www.syllabus.com/article.asp?id=5914> (accessed 27th March 2018)