

**AN INITIAL STUDY ON THE EFFECTIVENESS OF
LEARNING MANAGEMENT SYSTEM (LMS) AT REZZEN**

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AN INITIAL STUDY ON THE EFFECTIVENESS OF LEARNING MANAGEMENT SYSTEM (LMS) AT REZZEN

A thesis submitted to the Faculty of Information Technology in partial
fulfillment of the requirements for the degree Master of Science (Information
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ABSTRAK

Tujuan penyelidikan ini adalah untuk mengkaji keberkesanan Sistem Pembelajaran Elektronik (SPE) di Rezen yang digunakan dalam sistem penyampaian kepada pelajar peringkat sarjana muda dan sarjana. Tujuan penyelidikan ini adalah untuk menentukan keberkesanan (SPE) dan mencadangkan satu penambahbaikan kepada system tersebut. Dalam penyelidikan ini juga, para pelajar yang menggunakan (SPE) telah diselidik dan keputusan menunjukkan terdapat empat faktor penting mempengaruhi keberkesanan sistem tersebut. Faktornya ialah tindakbalas dan geraklaku pelajar itu sendiri, system dan teknologi, interaksi interaktif dan perlakuan pensyarah dalam menyampaikan system pembelajaran. Kesemua faktor tersebut telah dibincangkan secara terperinci dan sejauh mana keberkesanan dan peranan sistem ini (SPE) dalam pembelajaran.

ABSTRACT

The purpose of this research is to study the effectiveness of Learning Management System (LMS) at Rezzen used for delivering undergraduate and postgraduate programs. The aims are to identify the effectiveness the LMS and to provide recommendations for the future improvement of the system. In this study, students using the LMS environment in various courses at Rezzen were surveyed and the results showed that there are four main factors that influence the effectiveness of the LMS. These factors are students' behavior and attitude, technology and system, interactive applications and characteristics of lecturers, and the paper discusses these factors in detail with an emphasis on the role of the LMS in learning.

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LIST OF ABBREVIATIONS

LMS	Learning Management System
UNIMAS	University Malaysia Sarawak
UKM	Universiti Kebangsaan Malaysia
UPM	Universiti Putra Malaysia
Rezzen	Rezzen (M) Sdn. Bhd
SPE	Sistem Pembelajaran Elektronik

1.0 CHAPTER 1

1.1 INTRODUCTION

This chapter presents the main idea of the research, which is the process of examine the effectiveness of Learning Management System (LMS) introduced by Rezzen Management. In addition, this chapter also discusses problem statement, objectives, scope, and the significance of the study.

1.2 WHAT IS E-LEARNING

E-learning generally refers to the Internet technologies used to deliver a wide range of solutions that raise the instructional process (Poon, Low and Yong, 2004). Rosenberg (2001) believes that E-learning also combines online and knowledge management attributes. The e-learning environment can be viewed as an interactive network of systems, consisting a variety of functions to support a virtual classroom to enhance the quality of teaching and learning activities. Dewhurst *et al.*, (2000) and Tweddle *et al.*, (2000) in their studies' have shown that students are usually capable of using online learning material more effectively.

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REFERENCES

- Alhabshi, A.O. (2002), "E-learning – a Malaysia case study", National Institute of Public Administration (INTAN), Bukit Kiara Main Campus, Kuala Lumpur, Malaysia.
- Ancis, J.R. (1998), "Cultural competency training at a distance: challenges and strategies", *Journal of Counseling and Development*, Vol. 76 No.2, pp.134-43.
- Barron, T. (2001), "An e-learning industry update", *Learning Circuits*, available at: www.learningcircuits.org/2001/jul2001/barron.html (accessed 28 April 2007).
- Dewhurst, D.G., Macleod, H.A., Norris, T.A.M. (2000), "Independent student learning aided by computers: an acceptable alternative to lectures?", *Computers & Education*, Vol. 35 pp.223-41.
- Embi, A.M., Yamat, H., Zolkepli, H. (2001), "Trainees' perception towards a Web-based online course", *VirTEC Journal*, Vol. 1 No.1, pp.33-9.
- Gan, S.L. (1998), "Online distance education program: problems and issues", Proceedings of the International Conference on Information Technology and Multimedia at UNITEN (ICIMU '98), Malaysia.
- Hester, J.B. (1999), "Using a Web-based learning test as a learning tool", *Journalism & Mass Communication Educator*, Vol. 54 No.1, pp.35-41.
- Lee, M.G. (2001), "Profiling students' adaptation styles in Web-based learning", *Computers & Education*, Vol. 36 No.2, pp.121-32.

Leidner, D.E., Jarvenpaa, S.L. (1995), "The use of information technology to enhance management school education: a theoretical view", *MIS Quarterly*, Vol. 19 No.3, pp.265-91.

Manjit, S.S., Shaufique, F.S. (2002), "Factors influencing learning effectiveness in a virtual learning environment: a case study of University Tun Abdul Razak, Malaysia", available at: <http://gdenet.idln.or.id/Technology/TechnologyInterpInteracIntegratedManjid.htm> (accessed 9 April 2007),

McIsaac, M.S., Rowe, J. (1997), "Ownership and access: copyright and intellectual property in the online environment", *New Directions for Community Colleges*, Vol. 25 No.3, pp.83-92.

Parker, A. (1997), "A distance education how-to manual: recommendations from the field", *Educational Technology Review*, Vol. 8 pp.7-10.

Rezzan website – www.rezzan.com.my - accessed at 15/3/2007

Rosenberg, M.J. (2001), "E-learning: strategies for delivering knowledge in the digital age", available at: <http://reach.ucf.edu/~eme6457/main.html> (accessed 22 April 2007).

Schmeck, R.R., Geisler-Bernstein, E. (1989), "Individual differences that affect the way students approach learning", *Learning and Individual Differences*, Vol. 1 No.1, pp.85-124.

Schmidt, S., Shelly, M.C., Wart, M.V., Clayton, J., Schreck, E. (2000), "The challenges to distance education in an academic social science: the case of political science", *Education Analysis and Archives*, available at: <http://epaa.asu.edu/epaa/v8n27/> (accessed 26 July 2003)., Vol. 8 No.27, .

Sidek H.A. Aziz., 2006, Aida Suraya M. Yunus., 2006, Kamariah A. Bakar & Hamidah B. Meseran., 2006, "Design and Development of Learning Management System at Universiti Putra Malaysia: A Case Study of e-SPRINT"

Silong, A.D., Ibrahim, D.Z., Samah, B.A. (2001), "Perception of working adults toward online learning in a virtual university", available at:

<http://gdenet.idln.or.id/Technology/TechnologyInterpInteracIntegratedAbuDaud.htm>

(accessed 9 April 2007)

Webster, J., Hackley, P. (1997), "Teaching effectiveness in technology-mediated distance learning", *Academy of Management Journal*, Vol. 40 No.6, pp.1282-310.

Yazon, J.M.O., Mayer-Smith, J.A., Redfield, R.J. (2002), "Does the medium change the message? The impact of a Web-based genetics course on university students' perspective on learning and teaching", *Computers & Education*, Vol. 38 pp.267-85.