E-LEARNING PROTOTYPE FOR SECONDARY SCHOOL: A CASE STUDY IN IRAQ

AHMAID RASHED MOHAIN

UNIVERSITI UTARA MALAYSIA
SEPTEMBER 2010

E-LEARNING PROTOTYPE FOR SECONDARY SCHOOL: A CASE STUDY IN IRAQ

A thesis submitted to the College of Arts & Sciences
in partial fulfillment of the requirements for the degree
Master of Sciences (Information Communication Technology)
Universiti Utara Malaysia

By

AHMAID RASHED MOHAIN

SEPTEMBER 2010

KOLEJ SASTERA DAN SAINS
(College of Arts and Sciences)
Universiti Utara Malaysia

PERAKUAN KERJA KERTAS PROJEK
(Certificate of Project Paper)

Saya, yang bertandatangan, memperakukan bahawa
(I, the undersigned, certifies that)

AHMAID R. MOHAIN
(803150)

calon untuk Ijazah
(candidate for the degree of) **MSc. (Information Communication Technology)**

telah mengemukakan kertas projek yang bertajuk
(has presented his/her project of the following title)

E-LEARNING PROTOTYPE FOR SECONDARY SCHOOL:
A CASE STUDY OF IRAQ

seperti yang tercatat di muka surat tajuk dan kulit kertas projek
(as it appears on the title page and front cover of project)

bahawa kertas projek tersebut boleh diterima dari segi bentuk serta kandungan dan meliputi bidang ilmu dengan memuaskan.
(that this project is in acceptable form and content, and that a satisfactory knowledge of the field is covered by the project).

Nama Penyelia
(Name of Supervisor) :**ASSOC. PROF. ABDUL GHANI GOLAMDIN**

Tandatangan
(Signature) : _____ Tarikh (Date) : 18/10/2016

Nama Penilai
(Name of Evaluator) :**DR.MOHAMMED M. KADHUM**

Tandatangan
(Signature) : _____ Tarikh (Date) : 17/10/2016

DEAN OF POSTGRADUATE STUDIES AND RESEARCH

UNIVERSITI UTARA MALAYSIA

PERMISSION TO USE

In presenting this project in partial fulfillment of the requirements for a postgraduate degree from the Universiti Utara Malaysia, I agree that the University Library may make it freely available for inspection. I further agree that permission for copying of this project in any manner in whole or in part, for scholarly purposes may be granted by my supervisor(s) or in their absence by the Dean of Postgraduate Studies and Research. It is understood that any copying or publication or use of this project or parts thereof for financial gain shall not be allowed without my written permission. It is also understood that due recognition shall be given to me and to Universiti Utara Malaysia for any scholarly use which may be made of any material from my project.

Requests for permission to copy or to make other use of materials in this project, in whole or in part, should be addressed to

Dean of Postgraduate Studies and Research

College of Arts and Sciences

Universiti Utara Malaysia

06010 UUM Sintok

Kedah Darul Aman

Malaysia

ABSTRACT

Nowadays, many educational institutions (whether at secondary or tertiary level) have widened the access to their courses through new methods of delivery i.e. via electronically mediated learning or e-learning. Being a popular tool for teaching and learning, e-learning has been increasingly embedded within a broader framework of education reforms that aimed to develop students' capacities for self-learning, problem solving, information seeking and analysis, and critical thinking, as well as the ability to communicate, collaborate and learn, abilities that figured much less importantly in tertiary education. However, Iraq since the US invasion and the insurgency of 2003, the country has faced a deteriorating educational system that can be translated by the lack of resources, politicization of the education, uneven emigration and internal displacement of teachers and students, and security threats. Thus, this research aims at designing and building a prototype for Iraqi secondary school in order for students to access educational materials with no restrictions of time and place.

ACKNOWLEDGMENT

I am most grateful to Allah and to those who have helped me during the process of my research.

I am heartily thankful to my supervisor, Assoc.Prof. Abd Ghani Golamdin Whose encouragement, guidance and support from the initial to the final level enabled me to develop an understanding of the subject.

Deep gratitude goes to my parents, my family and my family in law, for their love, support and encouragement, as well as all lecturers at the faculty of Information Technology, that they gave me all the information for completing the requirements of this study, especially my evaluator Prof. Dr. Mohammed M.Kadhum.

Finally, I offer my regards and blessings to all of those who supported me in any respect during the completion of the research.

Ahmaid R. Mohain

TABLE OF CONTENTS

CHAPTER THREE

RESEARCH METHDOLOGY

CHAPTER FOUR

ANALYSIS & DESIGN

CHAPTER FIVE

CONCLUSION AND RECOMMENDATIONS

LIST OF FIGURE

LIST OF TABLE

CHAPTER ONE

INTRODUCTION

1.1 INTRODUCTION

In our current time, the rapid development of Information Technology and Communication (ICT) is radically affecting the way we share information about development issues. However, organizations such as governments, businesses, institutions, and individuals have jumped on the bandwagon to make ICTs part of their day-to-day organizational processes. Moreover, the ICT revolution encompasses influence in the two essential elements namely time and distance.

One the most vital area in which ICT is needed is education in which the effects of technology are emphasized as E-learning. This later is very important as it leads to a boom in the field of education as it eases the way students are enabled to access information and take advantage in terms of time and cost (Clarke & Luger, 2009).

The contents of the thesis is for internal user only

REFERENCES

Abdul-Karim, M., Roysam, B., Dowell-Mesfin, N., Jeromin, A., Yuksel, M., & Kalyanaraman, S. (2005). Automatic selection of parameters for vessel/neurite segmentation algorithms. *IEEE Transactions on Image Processing, 14*(9).

Al Musawi, A. (2010). The Instructional and Learning Technologies Department (ILT) in the College of Education, Sultan Qaboos University. *Educational Media and Technology Yearbook*, 101-116.

Al-Rawi, I., Azzawi, S. N., Jalili, I. K., Al Bayati, H., Adriaensens, D., & Varea, C. (2005). List of killed, threatened or kidnapped Iraqi Academics Retrieved 12 September, 2010, from http://www.brusselstribunal.org/academicsList.htm

B Rößling, G., Mehlhase, S., & Pfau, J. (2009). A Java API for Creating (not only) AnimalScript. *Electronic Notes in Theoretical Computer Science, 224*, 15-25.iomaterials, *29*(16)

Beck, A. (2005). The current state of cognitive therapy: a 40-year retrospective. *Archives of General Psychiatry, 62*(9), 953.

Billings, D. (2002). What is e-learning. *Conversations in e-learning. Pensacola, FL: Pohl Publishing.*

Billings, D., & Halstead, J. (2005). *Teaching in nursing: A guide for faculty*: WB Saunders Co. Elsevier Inc. USA.

Brusilovsky, P. (2001). Adaptive hypermedia. *User modeling and user-adapted interaction, 11*(1), 87-110.

Chan, F. (2002). ICT in Malaysian schools: Policy and strategies. *Educational Technology Division, Ministry of Education, Malaysia.* Retrieved on August 16-2010 from: *http://guage. u-gakugei. ac. ip/.*

Chen, M., Kiciman, E., & Brewer, E. (2002). *An online evolutionary approach to developing Internet services.* Retrieved September 05, 2010, from http://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.120.6023&rep=rep1&type=pdf

Clark, T. (2001). Virtual schools: status and trends. Phoenix, AZ: WestEd/Distance Learning Resource Network. Retrieved September 08, 2010, from: http://www.wested.org/online pubs/virtualschools.pdf

Clarke, A., & Luger, E. (2009). ICT and E-learning. Retrieved August 18, 2010, from:http://www.niace.org.uk/lifelonglearninginquiry/docs/ICT%20and%20 e-learning.pdf

Curristine, T. (2005). Performance information in the budget process: results of the OECD 2005 questionnaire. *OECD Journal on Budgeting, 5*(2), 87.

Demiray, U., Vainio, L., Sahin, m., Kurubacak, G., Lounaskorpi, P., & Rao, S. (2010). Institutional Studies and Practices. Retrieved September 08, 2010, from http://www.midasebook.com/dosyalar/Vol2_DCB.pdf.

Dondera, R., Jia, C., Popescu, V., Nita-Rotaru, C., Dark, M., & York, C. (2008). Virtual Classroom Extension for Effective Distance Education. *IEEE Computer Graphics and Applications, 28*(1), 64-74.

Education, D. (2009). Handbook on information technologies for education and training. *Distance Education, 30*(2), 285-287.

Ehtamo, H., Hamalainen, R., & Koskinen, Y. (2004). An e-learning module on negotiation analysis. *IEEE.* Published in the Proceedings of the Hawai'i International Conference on System Sciences, January 5 – 8, 2004, Big Island, Hawaii.

European Commission. (2004a). *E-Europe 2005.* Retrieved September 12, 2010 from, http://europa.eu. int/scadplus/leg/en/lvb/124226.

Gordon, S., Smyth, J., & Diehl, J. (2008). The Iraq War,"Sound Science," and "Evidence-Based" Educational Reform: How the Bush Administration Uses Deception, Manipulation, and Subterfuge to Advance its Chosen Ideology. *Journal for Critical Education Policy Studies, 6*(2), 1–32.

Govindasamy, T. (2001). Successful implementation of e-Learning:: Pedagogical considerations. *The Internet and Higher Education, 4*(3-4), 287-299.

Information Technology Authority (2007). Oman Digital Society Report, *ITA Publications*, Muscat.

Ismail, L., Serhani, M., Elnaffar, S., & Atif, Y. (2007). Semantic grid-based e-learning architecture. *skg*, 511-514.

Issa, J., & Jamil, H. (2010). Overview of the Education System in Contemporary Iraq. *European Journal of Social Sciences*, 14(3).

Kaplan, B., & Maxwell, J. (2005). Qualitative research methods for evaluating computer information systems. *Evaluating the Organizational Impact of Healthcare Information Systems*, 30-55.

Kelly, B., Phipps, L., & Swift, E. (2008). Developing a holistic approach for e-learning accessibility. *Canadian Journal of Learning and Technology/La revue canadienne de l'apprentissage et de la technologie, 30*(3).

Koo, A. (2008). Factors affecting teachers' perceived readiness for online collaborative learning: a case study in Malaysia. *Educational Technology & Society, 11*(1), 266–278.

Lavooy, M., & Newlin, M. (2003). Computer Mediated Communication: Online Instruction and Interactivity. *Journal of Interactive Learning Research, 14*(2), 157-166.

Marchionini, G. (2003). Video and learning redux: new capabilities for practical use. *educational technology-saddle brook then englewood cliffs nj-, 43*(2), pp. 36-41.

Motorola. (2010). *Building The K-12 Networks Of The Future Today*. Motorola.Inc. USA. Retrieved September 10, 2010 from : http://wirelessnetworkchannel-asia.motorola.com/pdf/sm_vertical_market_segment_sales_tools/education/Building_the_K12_Networks_of_the_Future_Today_(low).pdf

Murdock, J., Shippey, G., & Ram, A. (1997). Case-based planning to learn. *Case-Based Reasoning Research and Development*, 467-476.

Naber, L., & Köhle, M. (2006). E-nhance Lectures. *Journal of Digital Information, 3*(4).

Newman, A., Stein, M., & Trask, E. (2003). *What can virtual learning do for your school?* Boston, MA; Eduventures, Inc.

Nichols, M. (2003). A theory for eLearning. *Educational Technology & Society, 6*(2), 1-10.

Nielsen, J., & Loranger, H. (2006). *Prioritizing web usability*: New Riders Publishing Thousand Oaks, CA, USA.

Onasanya, S. (2007). Econdary School Teachers Onasanya & Asuquo Secondary School Teachers' perception Of Problems And Challenges Associated With Web-Based Learning In Nigeria. *Ife journal of curriculum studies and development: IJCSD.*, 1.

Palloff, R., & Pratt, K. (2003). *The virtual student: A profile and guide to working with online learners*: Jossey-Bass Inc Pub.

Peak Group. (2002, June). *Virtual schools across America: Trends in K-12 online education 2002.* Los Altos, CA: The Peak Group.

Piccoli, G., Ahmad, R., & Ives, B. (2001). Web-based virtual learning environments: A research framework and a preliminary assessment of effectiveness in basic IT skills training. *Mis Quarterly, 25*(4), 401-426.antigens. 2516-2526.

Rahman, R. (2004). *E-learning initiatives in Malaysian schools.* Retrieved September 08, 2010, from: http://gauge.u-gakugei.ac.jp/apeid/apeid04/country_papers/malaysia.pdf

Reding, V. (2003). *E-learning: Better E-learning for Europe.* Paper presented at the E-learning & e-Training 2003 Conference, Nicosia, Cyprus.

Rekkedal, T. (2008). Mobile Learning in Norway. *The Role of Mobile Learning in Europe Today, pp, 178-206.*

Rekkedal, T., & Dye, A. (2009). Mobile Distance Learning with PDAs: Development and testing of pedagogical and system solutions supporting mobile distance learners. *Mobile learning: Transforming the delivery of education and training*, 51–74.

Sridaran, R., Padmavathi, G. & Iyakutti, K. (2009). A Survey of Design Pattern Based Web Applications. *Journal of Object Technology*, vol. 8, no. 2, pp. 61-70.

Uzunboylu, H. (2006). A review of two mainline e-learning projects in the European Union. *Educational Technology Research and Development, 54*(2), 201-209.

Vaishnavi V & Kuechler B (2004). Design Research in information system [Electronic Version] Retrieved September 05, 2010, from http://www.isworld.org/Researchdesign/drisISworld.htm

Wang, J., Niu, Z., Song, H.,& Liu, L.(2007). The Design and Realization of Distributed Learning Management System Based on Internet, *Information technologies and applications in education,* IEEE. 162-166.

Wen, L., & Jesshope, C. (2004). A general learning management system based on schema-driven methodology. IEEE International Conference on Advanced Learning Technologies. 633-635.

WES (2004). Iraq: Education Overview. *World Education Services* Retrieved September 04, 2010, from http://www.wes.org/ca/wedb/iraq/izedov.htm

Woolf, B. (2008). *Building intelligent interactive tutors: Student-centered strategies for revolutionizing e-learning*: Morgan Kaufmann

Ya'acob, A., Nor, N., & Azman, H. (2005). Implementation of the Malaysian Smart School: An Investigation of Teaching-Learning Practices and Teacher-Student Readiness. *Internet Journal of e-Language Learning & Teaching, 2*(2), 16-25.

Yang, Y., & Hsu, P. (2008). The effect of poly (d, l-lactide-co-glycolide) microparticles with polyelectrolyte self-assembled multilayer surfaces on the cross-presentation. 2516-2526

Zhang, D., Zhao, J., Zhou, L., & Nunamaker Jr, J. (2004). Can e-`learning replace classroom learning? *Communications of the ACM, 47*(5), 75-79.

Zhang, D., Zhou, L., Briggs, R., & Nunamaker, J. (2006). Instructional video in e-learning: Assessing the impact of interactive video on learning effectiveness. *Information & Management, 43*(1), 15-27.