



Participation in Research and Innovation Exhibitions: E-Learning Applications in Arabic Language

Muhammad Sabri Sahrir¹

ABSTRACT

Arabic learning is in dire need for advance teaching and learning aids, especially with the integration of advanced multimedia application by using computer assisted applications, and learning courseware such as educational websites, digital or online language games, mobile learning applications, etc. In fact these applications have already been developed and explored by many researchers all over the world in various platforms such as web-based, CD-based, cloud based as well as mobile-based applications. The potential of designing and developing these applications is not limited to the benefits for teaching and learning Arabic language per se, but it is also has prospects to go into breakthrough of the innovation exhibition and competitions which are organized locally and internationally. These events are important for the researchers to generate and promote their innovative ideas to others and has the potential to transform their research into commercial products and winning the medal awards based on the evaluation criteria in the research and innovation exhibition and competition. The purpose of this paper is to discuss several research and innovation exhibition and competitions which are being organised locally and internationally and its relationship and potential with the development of multimedia applications in the field of teaching and learning Arabic language.

Keywords: *Design and development, research and innovation, multimedia application, Arabic teaching and learning, computer assisted language learning (CALL)*

INTRODUCTION

The emergence of research and innovation exhibitions and competitions is a current trend in this era of research world and has attracted the participation of researchers from various fields of knowledge regardless of their specialization either it is in the true science-based or social science-based field of knowledge. For the computer assisted language learning (CALL), it

¹ Muhammad Sabri bin Sahrir (Assoc. Prof. Dr), Department of Language and Literacy, Kulliyah of Education, International Islamic University Malaysia, 53100 Gombak, Kuala Lumpur, muhdsabri@iiium.edu.my.

has high potential of relationship with this innovative research events as it is pertinent to the exploring and innovating new ideas and products in teaching and learning Arabic especially to the non-native speakers as effective instructional aids for the learners. The potential of utilizing these educational multimedia applications in teaching and learning Arabic should not be limited to enhance teaching and learning performance per se, but it is also may be complemented with the exploration of participation in the research and innovation exhibitions and competitions. These research events provides several benefits to the educational practitioners, learning institutions, teachers and learners by presenting new ideas, innovation new learning products, exchange of networking and linkages among researchers, promoting learning institutions to the industrial partners, as well as winning prestigious research and innovation medals locally and internationally which contribute to the university's ranking.

DESIGN AND DEVELOPMENT OF COMPUTER APPLICATIONS IN ARABIC LANGUAGE TEACHING AND LEARNING

Nowadays the use of computer and its applications have become an integral part of the modern societies' life. Changes within the different aspects of life happen in rapidly and it is the duty of every society to keep up with the information era, especially in embracing the computer and its applications which would then individuals as qualified and well-armed in bracing the rapid changes of this era². Learning through multimedia is becoming the focus of researchers in computer-assisted language learning in order to enhance the effectiveness of learning process. The term "multimedia learning" can be defined as the presentation of material using both words and pictures³.

In addition, Mayer and Moreno⁴ found that the learner's understanding while watching animated images of a certain phenomenon (the lightning phenomenon) accompanied with an auditory explanation is much better than the learner's understanding of the similar animated images while verbally reading an on screen text explanation. These technical developments are now synchronized within the stages of self-learning development. This involved the use of multi-medias and computer-assisted learning method which increasingly activated the role of computer in language learning as Based on Mohd Feham and Isarji⁵, Mohd Feham⁶, Ashinida, Afendi and Mohd Shabri⁷ and Zawawi⁸, there is still lack of use of computer-assisted technology in the Arabic language teaching and learning.

² Al-Harak, Hesham Muhammed. *Internet in education - E-school project. Informatic network news*. Retrieved July 17, 2003 from <http://www.annabaa.org/nbanews/24/096.htm>

³ Mayer, R.E. *Multimedia Learning* (9th edition). New York, United States: Cambridge University Press, 2001

⁴ Mayer, R. & Moreno, A. *Split-attention effect in multimedia learning: evidence for dual processing systems in working memory*. *Journal of Educational Psychology*. Vol. 90, 312-314, 1998

⁵ Mohd Feham Mohd Ghalib & Isarji Sarudin. *On-line Arabic: Challenges, limitations and recommendations*. Proceedings of National Conference on Teaching and Learning in Higher Education, Universiti Utara Malaysia, Kedah 231-232, 2000

⁶ Mohd Feham Mohd Ghalib. *The design, development and testing on the efficacy of a pedagogical agent on the performance and program rating scores among students learning Arabic*. Unpublished Ph.D. dissertation, Universiti Sains Malaysia, 2006

⁷ Ashinida Aladdin, Afendi Hamat & Mohd. Shabri Yusof. *Penggunaan PBBK(Pembelajaran bahasa berbantuan komputer) dalam pengajaran dan pembelajaran bahasa Arab sebagai bahasa asing: Satu tinjauan awal*. *GEMA Online® Journal of Language Studies*, 4(1), 9-17, 2004

⁸ Zawawi Ismail. *Penilaian pelaksanaan kurikulum kemahiran bertutur bahasa Arab komunikasi di Sekolah Menengah Kebangsaan Agama. – Evaluation of implemented curriculum of speaking skill in Arabic communicative subjects in religious secondary schools*. Unpublished Ph.D Dissertation, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia, 2008

Furthermore, Mohd Feham⁹ mentioned that there are few inventions and innovations available in the field of Arabic language learning, due to several reasons that pose a limit to the number of Arabic language educational software and courseware. The majority of Arabic language teachers are also found to be incompetent in using the computer and courseware in the teaching process due to poor computer literacy, especially among the senior generations¹⁰ and also lacking computer training¹¹. In addition, the technological production of machinery for Arabic language teaching and learning is also being dominated by the American-English language, be it in terms of software or hardware as pointed out by Ditter¹². The studies also have reiterated that multimedia applications have the ability in assisting the process of teaching in the classroom in enabling more flexibility and effectiveness¹³ as well as in providing better learning experience compared to the face-to-face environment¹⁴. A particular study in learning Arabic using multimedia found that the audio with images mode was an important aid to learning as compared to text with images mode¹⁵.

The importance of using multimedia and computer applications in teaching and learning Arabic nowadays has led to the design and development of various multimedia learning applications in order to enhance learner's performance and facilitate effective and enjoyable teaching aids in Arabic language. As mentioned earlier, this paper is sharing the idea of participation of this Arabic multimedia learning applications in research and innovation exhibitions and competitions in order to promote the potential of them in exploring various benefits as well as winning prestigious research and innovation medals locally and internationally. This achievements are significant to improve the researchers' performance, their research networks and linkages, which contribute to the better and higher university's ranking. Based on QS Stars university rating, innovation is one of the criteria assessed by the QS Stars university rating service for universities, by measuring rewards universities whose work goes beyond the confines of academia from three criteria of patent (20 points), spin-off companies (10 points) and industrial research (20 points)¹⁶.

⁹ Mohd Feham Mohd Ghalib. *The design, development and testing on the efficacy of a pedagogical agent on the performance and program rating scores among students learning Arabic*. Unpublished Ph.D. dissertation, Universiti Sains Malaysia, 2006

¹⁰ Zawawi Ismail. *Penilaian pelaksanaan kurikulum kemahiran bertutur bahasa Arab komunikasi di Sekolah Menengah Kebangsaan Agama. – Evaluation of implemented curriculum of speaking skill in Arabic communicative subjects in religious secondary schools*. Unpublished Ph.D Dissertation, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia, 2008

¹¹ Ashinida Aladdin, Afendi Hamat & Mohd. Shabri Yusof. *Penggunaan PBBK (Pembelajaran bahasa berbantuan komputer) dalam pengajaran dan pembelajaran bahasa Arab sebagai bahasa asing: Satu tinjauan awal*. GEMA Online® Journal of Language Studies, 4(1), 9-17, 2004

¹² Ditter, E. *Technologies for Arabic language teaching and learning*. In K. M. Wahba, Z. A. Taha & L. England (Ed.). *Handbook for Arabic language teaching professionals in the 21st century*, pp. 239-252, 2006. New Jersey, USA: Lawrence Erlbaum Associates, Inc.

¹³ Zamri, Mahamod & Nur Aisyah Mohamad Noor. *Persepsi Guru Tentang Penggunaan Aplikasi Multimedia Dalam Pengajaran Komponen Sastera Bahasa Melayu*. GEMA Online® Journal of Language Studies. Vol. 3 (11), 169-175, 2011

¹⁴ Vincent, Pang, Lee, Kean Wah, Tan Choon Keong & Syukery Mohamed. *E-learning initiatives in educating student teachers*. GEMA Online® Journal of Language Studies. Vol. 5(2), 22-24, 2005

¹⁵ Aldalalah, O, Fong, S.F. & Ababneh, W.Z. *Effects of multimedia-based instructional designs for Arabic language learning among pupils of different achievement levels*. International Journal of Human and Social Sciences. Vol. 5(5), 1080-1081, 2010.

¹⁶ QS Top Universities. Rating Universities on Innovation: QS Stars. Retrieved on 21th of March 2014 from <http://www.topuniversities.com/qs-stars/rating-universities-innovation-qs-stars>

PARTICIPATION IN THE RESEARCH AND INNOVATION EXHIBITION AND COMPETITIONS LOCALLY AND INTERNATIONALLY

The researchers have several options in participating in the research and innovation exhibition and competitions which are being organised locally and internationally. These events can be divided into categories such as the followings:

i) Faculty Level among Staff and Students

Some of the research and innovation exhibitions and competitions are organised at the faculty members among students and staff. By organising this research events, the faculty has the opportunity to generate new ideas among staff and students, and selecting the best presentations and products to the higher level of exhibitions and competitions. The examples of these research events are as indicated below:

- a) Kulliyah Postgraduate Exhibition, Research and Innovation (KERIE), International Islamic University Malaysia (IIUM)



Figure 1: KERIE, IIUM

- B) Research, Invention, Innovation and Design, MARA University of Technology, Melaka (RIID).



Figure 2: RIID, UiTM Melaka

ii) **University Level.**

Some of the research and innovation exhibitions and competitions are organised at the university level as well among staff members and students. By organising this research events, the university has the opportunity to generate new ideas among staff and students, and selecting the best presentations and products to the higher level of exhibitions and competitions. The examples of these research events are as indicated below:

- a) International Research, Invention and Innovation Exhibition (IRIIE), International Islamic University Malaysia (IIUM)



Figure 3: International Research, Invention and Innovation Exhibition (IRIIE), <http://www.iium.edu.my/irie/16/>

- b) Invention, Innovation and Design Exposition (IIDEX), MARA University of Technology (UiTM), Shah Alam, Selangor.

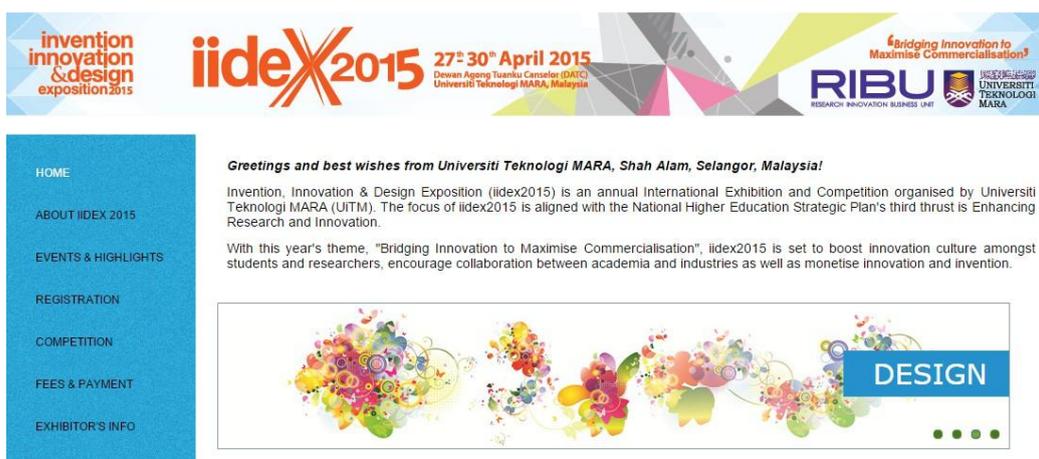


Figure 4: Invention, Innovation and Design Exposition (IIDEX), *UiTM*. <http://www.iidex.com.my/>

iii) National Level.

Some of the research and innovation exhibitions and competitions are organised at the national level. By this research events, the country has the opportunity to generate new ideas among staff and students in the universities, schools and colleges by selecting best presentations and products to the higher level of exhibitions and competitions internationally. The examples of these research events are as indicated below:

- a) International Conference and Exposition on Inventions by Institutions of Higher Learning (PECIPTA)



Figure 4: PECIPTA, <http://pecipta.upsi.edu.my/index.php/component/content/featured?id=featured>

- b) ITEX Malaysia



Figure 5: ITEX, Malaysia, <http://www.itex.com.my/>

- c) The Exposition on Islamic Innovation (i-Inova), Universiti Sains Islam Malaysia (USIM) and Ministry of Education Malaysia (MoE).

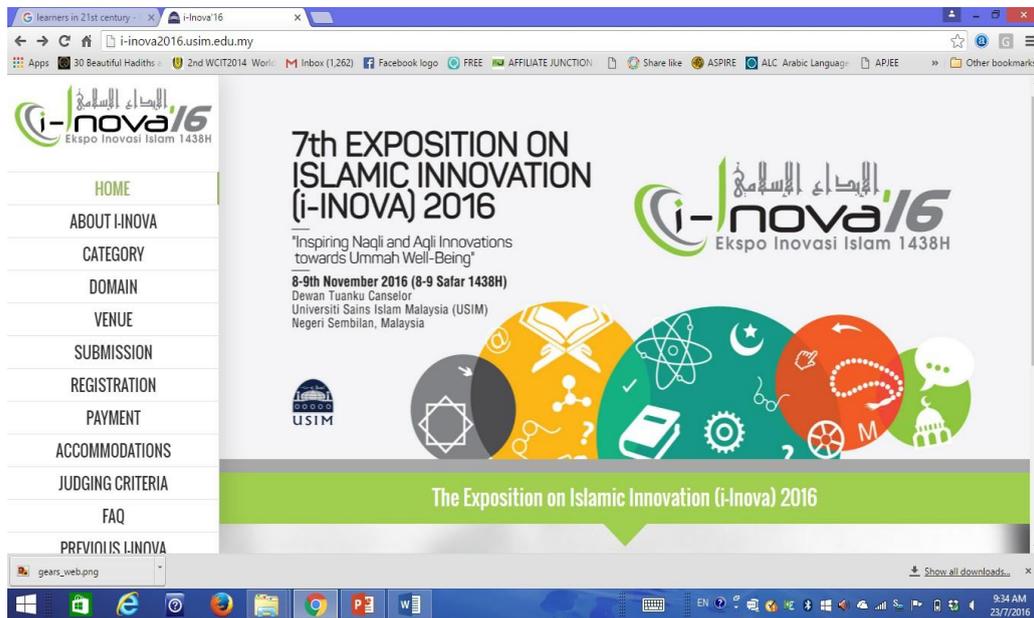


Figure 6: The Exposition on Islamic Innovation (i-Inova), USIM and MoE, <http://i-inova2016.usim.edu.my/>

- d) National Innovation and Invention Competition Through Exhibition (i-COMPEX), Politeknik Sultan Abdul Halim Mu'adzam Shah (POLIMAS) and Ministry of Education Malaysia (MoE).



Figure 7: National Innovation and Invention Competition Through Exhibition (i-COMPEX), <http://app.polimas.edu.my/icomplex/>

- e) [International Syariah Compliant Idea, Invention, Innovation & Design \(Isciuid\)](http://sciuid.uitm.edu.my/), Mara University of Technology (UiTM), Shah Alam, Selangor and Ministry of Education Malaysia (MoE).



Figure 8: [International Syariah Compliant Idea, Invention, Innovation & Design \(ISCIID\)](http://sciuid.uitm.edu.my/), UiTM and MoE. <http://sciuid.uitm.edu.my/>

- f) International University Carnival on E-Learning (IUCEL) Organised by National Council on E-Learning (Meipta) and Ministry of Education Malaysia (MoE). The Exhibition is Formerly Known as National University Carnival On E-Learning - NUCEL.



Figure 9: International University Carnival on E-Learning (IUCEL), by MEIPTA, UiTM and MoE, <http://ctl.utm.my/iucel/>

- iv) **International Level.**

Among the research and innovation exhibitions and competitions are organised at the international level are as the following:

a) International Exhibition of Inventions of Geneva, Geneva, Switzerland.



Figure 10: International Exhibition of Inventions of Geneva,
<http://www.carnifest.com/events/switzerland/geneve/982/international-exhibition-of-inventions-of-geneva-2015.aspx>

b) Brussels Innova, the International Exhibition of Invention, Research and New Technologies, Belgium.



Figure 10: Brussels Innova, <http://www.brussels-innova.com/>

C) Korea Seoul International Invention Fair (SIIF)



Figure 11: SIIF 2016: <http://www.siif.org/eng/>

SEVERAL EXAMPLES OF SUCCESSFUL PARTICIPATIONS IN THE RESEARCH AND INNOVATION EXHIBITION AND COMPETITIONS

a) Online Arabic Vocabulary Games Learning Website, IIUM

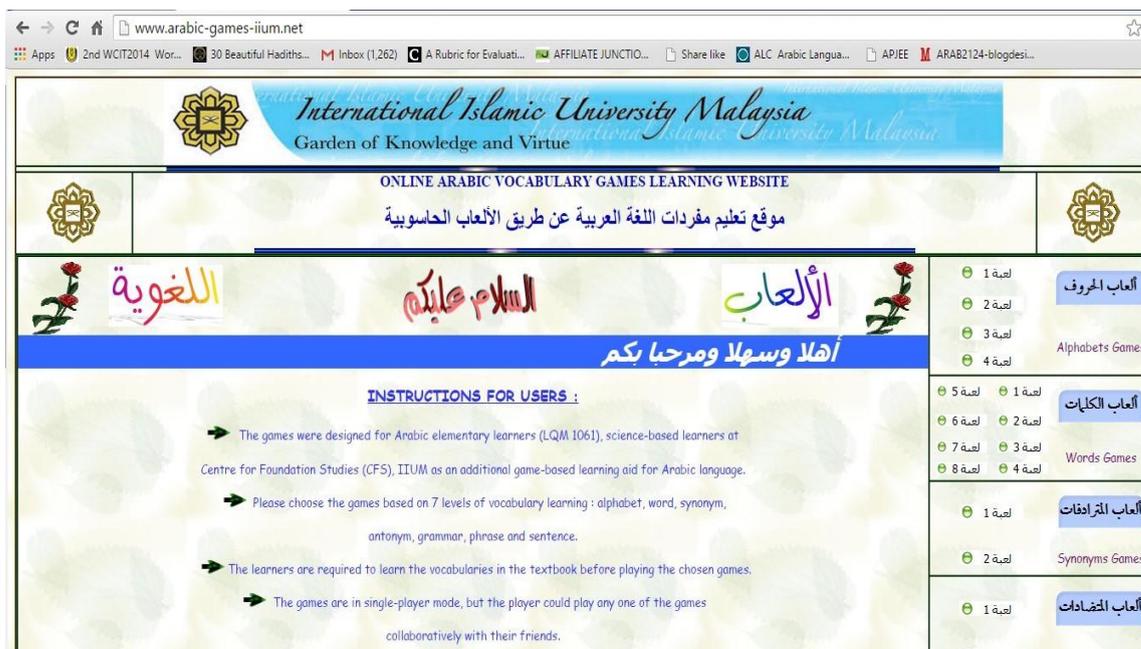


Figure 11: Online Arabic Vocabulary Games Learning Website, <http://www.arabic-games-iium.net/>

- 1- Inventor : Assoc Prof. Dr Muhammad Sabri Sahrir (IIUM)
- 2- Achievements : Silver medal, IID-SE 2010, UiTM Shah Alam
Silver medal, IRIIE 2011, IIUM
Bronze medal, i-NOVA 2011, USIM and MoE
Bronze medal, IRIIE 2012, IIUM
Silver medal, NUCEL 2014, MEIPTA, UITM and MoHe.
Gold Medal, PECIPTA 2015, UPSI and MoHe.
Bronze Medal 2016, Malaysia Technology Expo – MTE 2016

3- Sample of poster presentation:



Arabic Language Learning Through Digital Games for Non Native Speakers

DR MUHAMMAD SABRI SAHRIR,
DR MOHD FEHAM MD GHALIB

International Islamic University Malaysia
53100 Gombak, Kuala Lumpur, MALAYSIA

Phone: 03-61966704, Fax: 03-61966369, E-mail: muhdsabri@iium.edu.my



IIUM - A 125
NUCeL 2014

ABSTRACT

Educational games or Digital Game-based Learning (DGBL) have been among teaching and learning aids in many disciplines of knowledge. This research project presents a report of case study that was conducted in Centre for Foundation Studies (CFS), International Islamic University Malaysia (IIUM) to design, develop and evaluate an online Arabic e-learning game among pre-university learners of Non-Arabic native speakers. The research process of this project begun with the literature analysis of 3 related theories of Nation [2003], Prensky [2007] and Mayer [2007]. The design and development of this games prototype are modeled on the methods and approaches of design and development research or DDR [Richey and Klein, 2007], or formerly known as developmental research [Richey, Klein and Nelson, 2004]. The prior needs analysis for the design and development of this games prototype was conducted among 113 out of 133 learners, and the correlational analysis was conducted after completion of this prototype among 100 learners in 3 different academic semesters.

(A) INPUT

Underlying Design Theories

ID Expert, SME Expert, Leamer, Lecturer, IT Staff

ANALYSIS

Vocabulary Learning Theory, Multimedia Learning Theory, Digital Game-Based Learning Theory, Learners, Performance, Needs, Environmental

DESIGN

DGBL Expert, SME Expert, Design Principles, Programmers, Expert Review, UX Evaluation

DEVELOPMENT

Field Test, Small Group, Online Games Development, Pre-Prototype Development

(B) PROCESS

Lighting Content, Content Selection, Storyboarding, Lesson Plan, Web-Based Design, Games Design

(C) OUTPUT

Lessons Learned, Prototype 2 Development, Prototype 1 Development, Pre-Prototype Development, Online Games Development, Arabic DGBL ID Module

OBJECTIVES

The objective of this project is to support Arabic language learning through online educational digital games and the final report was reported in a mixed method evaluation including learners' perception, concentration, immersion and knowledge improvement and qualitative findings from interview sessions, think-aloud methods, open-ended questionnaires, testimonials and class observation.

VALUE ADDED AND USEFULNESS

This digital games prototype is using web-based platform with Raptivity e-authoring tool in the prototype development process with a compendium of 34 various language games for Arabic language learners.

COMMERCIALIZATION POTENTIAL

- The product is used since 2011 until now.
- The commercialization for this product is wide, which include various universities, schools, colleges, educational courses and programmes, etc.

USER TESTING SESSIONS	MEAN SCORE AND INTERPRETATION			
	PERCEPTION	CONCENTRATION	IMMERSION	KNOWLEDGE IMPROVEMENT
Small Group Evaluation (16 users)	4.09 (High)	4.01 (High)	3.48 (Moderate High)	4.56 (High)
Field Test Evaluation 1 (35 users)	3.98 (Moderate High)	4.01 (High)	3.27 (Moderate High)	4.48 (High)
Field Test Evaluation 2 (49 users)	3.89 (Moderate High)	3.78 (Moderate High)	3.28 (Moderate High)	4.37 (High)

** Correlation is significant at the 0.01 level (2-tailed).

PUBLICATIONS

- 1- Muhammad Sabri, Sahrir (2011). *Formative evaluation of an Arabic online vocabulary learning games prototype : Lessons from a Malaysian higher learning institution experience*. In Alias, N. & Hashim, S. (Eds.), INSTRUCTIONAL TECHNOLOGY RESEARCH, DESIGN AND DEVELOPMENT: LESSONS FROM THE FIELD. IGI Global, Hershey, PA, United States. ISBN 9781613501986 (in Press by November 2011, Indexed in IDEA Group).
- 2- Muhammad Sabri, Sahrir & Nor Aziah, Alias (2011). *A study on Malaysian language learners' perception towards learning Arabic via online games*. GEMA Online Journal of Language Studies, volume 11(3), pp. 129-145, September 2011 (SCOPUS)
- 3- Sahrir, Muhammad Sabri and Alias, Nor Aziah and Ismail, Zawawi and Osman, Nurulhuda (2012) *Employing design and development research (DDR) approaches in the design and development of online Arabic vocabulary learning games prototype*. TOJET: The Turkish Online Journal of Educational Technology, 11 (2), pp. 108-119. ISSN Old (1303-6521), New: (2146-7242) – ISI Journal
- 4- Sahrir, Muhammad Sabri and Yusri, Ghazali (2012). *Online vocabulary games for teaching and learning Arabic*. GEMA Online Journal of Language Studies, 12 (3), pp. 961-977. ISSN 1675-8021 (SCOPUS)
- 5- Sahrir, Muhammad Sabri (2013) *Al-af'aaq al-lughawiyah al-muhasabah fi ta'allum al-lughah al-arabiyyah li an-nasatqin bi ghayriha bayna al-nazariyyah wan al-talabi: al-jam'i'ah al-Islamiyyah al-salamiyah bi Maalziyasa namudhazan*. Journal of Faculty of Dar Al Uloom, Egypt, 28, pp. 1-16. ISSN 6867-1999
- 6- Sahrir, Muhammad Sabri (2013) *Rekabentuk permainan bahasa Arab komputer dalam pembelajaran bahasa Arab di kalangan para pelajar peringkat permulaan di UIAM dalam tahun 2008 hingga 2011*. Special Bulletin by Saudi Cultural Attache in Malaysia. p. 13.

RECOGNITIONS AND AWARDS

- 1- Catalogued in the National Grassroot Innovation Databank of Yayasan Inovasi Malaysia (ONLINE).
- 2- SILVER : Invention, Innovation and Design – Special Edition (IID-SE 2010), UiTM Shah Alam.
- 3- SILVER : IIUM Research, Invention and Innovation Exhibition (IRIIE) 2011, International Islamic University Malaysia (IIUM).
- 4- BRONZE : Islamic Innovation Expo 2011 (i-Inova' 2011), Indoor Nilai Stadium, organised by USIM and MoHE.
- 5- BRONZE : IIUM Research, Invention and Innovation Exhibition (IRIIE) 2012, International Islamic University Malaysia (IIUM).







b) EZ-Arabic – Virtual Learning Platform for Malaysian Primary Schools.

ABSTRACT
This innovation features a virtual Arabic learning tool prototype, which is specifically designed for learners at primary schools in Malaysia. This expanded Arabic virtual learning tool prototype enables teachers and students access to additional Arabic language learning aids, and complementing traditional learning methods. The prototype provides a new learning experience for students who have been through a traditional Arabic teaching and learning methods, by immersing into the attractive, interesting and interactive virtual learning environment. It facilitates Arabic learning enhancement through a compendium and a variety of open-sources learning tools such as the followings: (a) E-books, (b) Educational Arabic games, (c) Audio and visual learning aids in Arabic, (d) Online dictionary and translator for Arabic, (e) Online chat-box for virtual discussion, and (f) Links of various websites in learning Arabic for children.

PURPOSE & HYPOTHESIS

- To provide a virtual learning platform and a tool for learning Arabic, especially for children learners from Malaysian primary schools.
- To provide an alternative supplementing reference for the traditional textbook.
- To enhance learners' interest and motivation towards learning Arabic via various multimedia support files such as pictures, sounds and videos.
- To facilitate Arabic learning enhancement through a compendium and a variety of open-sources learning tools.

MATERIALS & METHODS
The innovative process begun with the literature analysis of three theories based on the work of Nation (2003), Prensky (2001) and Mayer (2001). The design and development of this game-based learning prototype are modelled on the methods and approaches of design and development research (Richey & Klein, 2007). This method is also known as designed case (Reigeluth & Frick, 1999), design-based research (Reeves, 2006 & Herrington, et. al, 2007), formative research (Nieveen, 2007), and design research (Bannan-Ritland, 2003; Van der Akker, 2007). This prototype is designed and developed based on 'design principles' adapted from a study by Muhammad Sabri (2011), which was conducted on the design and development of an online Arabic vocabulary learning games prototype among pre-university learners in IUM.

RESULTS & CONCLUSIONS
The prototype is still in its pilot phase of design and development by analysing the feedbacks from teachers and pupils from several selected teachers in Malaysian primary schools. The prospect potential market and use of this product are wide, it includes: schools, universities and other learning institutions, special programmes, eg: J-QAF, KAFA, states religious schools, etc. The URL for this games prototype is : <http://ezarabic.net/>.

ACHIEVEMENTS

- National Innovation & Invention Competition Through Exhibition 2014 (Gold Medal).
- Brussels Innova: The World Exhibition on Inventions, Research and New Technologies 2014 (Silver Medal).
- Special Award : "Prize of the Idea Monopoly (Belgium)".
- Minggu Penyelidikan & Inovasi UniSZA 2014 (Silver Medal).
- IUM Research, Invention & Innovation Exhibition 2012 (Bronze Medal).
- Mohd Firdaus Yahaya, Muhammad Sabri Sahrir & Mohd Shahrizal Nasir. 2013. *Pembangunan Laman Web EZ-Arabic Sebagai Alternatif Pembelajaran Maya Bahasa Arab bagi Pelajar Sekolah Rendah Malaysia*, Jurnal Teknologi, 61(1), 11-18. [SCOPUS]
- Muhammad Sabri Sahrir, Mohd Firdaus Yahaya & Mohd Shahrizal Nasir. 2013. *EZ-Arabic for Children: A Virtual Learning Resource Tool for Malaysian Primary Schools*, Elsevier: Procedia-Social and Behavioral Sciences, 90, 396-404.
- Mohd Firdaus Yahaya, Muhammad Sabri Sahrir & Mohd Shahrizal Nasir. 2013. *Pembelajaran Bahasa Arab Peringkat Sekolah Rendah Menerusi "EZ-Arabic": Satu Pengenalan*, ICall 2013, 484-504.
- Muhammad Sabri Sahrir, Mohd Firdaus Yahaya & Mohd Shahrizal Nasir. 2013. *EZ-Arabic Untuk Kanak-Kanak*, Inovasi Kementerian Pengajian Tinggi Malaysia, cet.1, 73.

Figure 11: EZ-Arabic, <http://ezarabic.net/v1/en/>

- 1- Inventor : Mohd Firdaus Yahaya & Mohd Shahrizal Nasir (Universiti Sultan Zainal Abidin, UniSZA, Terengganu) and Dr Muhammad Sabri Sahrir (IUM)
- 2- Achievements : Silver medal, IRIIE 2012, IUM
Silver medal, UniSZA 2014
Gold medal, i-COMPEX 2014
Silver medal, ISCIID2014, UiTM and MoE
Bronze medal, i-NOVA 2014, USIM and MoE
Silver medal, Brussels Inova 2014, Belgium.
Special award (Prize of the Idea Monopoly), Brussels Inova 2014
Gold Medal, IUCEL 2016 (EZ-Arabic 2.0).

3- Sample of poster presentation in PECIPTA 2015 organised by Ministry of Higher Education, Malaysia:



DR MUHAMMAD SABRI SAHRIR, DR MOHD FEHAM MD. GHALIB
DEPARTMENT OF ARABIC LANGUAGE AND LITERATURE
KULLIYAH OF ISLAMIC REVEALED KNOWLEDGE AND HUMAN SCIENCES
INTERNATIONAL ISLAMIC UNIVERSITY MALAYSIA
53100 KUALA LUMPUR
muhdsabri@iium.edu.my, 03-61965137



ARABIC EDUCATIONAL VOCABULARY GAMES FOR BEGINNERS

PRODUCT DESCRIPTION

Educational game or Digital Game-based Learning (DGBL) has been among teaching and learning aids in many disciplines of knowledge. This project presents an educational product of Arabic educational games for beginners that was specifically designed for pre-university students of Non-Arabic native speakers at the Centre for Foundation Studies (CFS), International Islamic University Malaysia (IIUM). This educational games in Arabic vocabulary are being used by the learners since 2011 until now. This digital games prototype is using web-based platform with Raptivity e-authoring tool in the prototype development process with a compendium of 34 various language games for Arabic language learners.

METHODOLOGY



COMMERCIAL POTENTIALS

- The product is used since 2011 until now.
- The commercialization for this product is wide, which include various universities, schools, colleges, educational courses and programmes, etc.
- Various levels of learners in different learning institutions and settings.



URL: www.arabic-games-iium.net



IID-SE 2010
UITM



IRIIE 2011
IIUM



i-INOVA 2011
USIM



IRIIE 2012
IIUM



NUCEL 2014
MEIPTA & MOE

RESULT AND DISCUSSION

USER TESTING SESSIONS	MEAN SCORE AND INTERPRETATION			
	PERCEPTION	CONCENTRATION	IMMERSION	KNOWLEDGE IMPROVEMENT
Small Group Evaluation (16 users)	4.09 (High)	4.01 (High)	3.48 (Moderate High)	4.56 (High)
Field Test Evaluation 1 (35 users)	3.98 (Moderate High)	4.01 (High)	3.27 (Moderate High)	4.48 (High)
Field Test Evaluation 2 (49 users)	3.89 (Moderate High)	3.78 (Moderate High)	3.28 (Moderate High)	4.37 (High)

** Correlation is significant at the 0.01 level (2-tailed).

NOVELTIES

THEORY: Based on design and development research or DDR: The design and development of this games prototype are modeled on the methods and approaches of design and development research or DDR [Richey and Klein, 2007], or formerly known as developmental research [Richey, Klein and Nelson, 2004].
PRACTICE: Practical use of this educational vocabulary games for learners at CFSIIUM. It is also suitable for other settings as it is designed for beginner learners.

AWARD & PUBLICATIONS:

- Muhammad Sabri, Sahrir (2011). *Formative evaluation of an Arabic online vocabulary learning games prototype : Lessons from a Malaysian higher learning institution experience*. In Alias, N. & Hashim, S. (Eds.), Instructional Technology Research, Design And Development: Lessons From The Field. IGI Global, Hershey, PA, United States. ISBN 9781613501986 (In Press by November 2011, indexed in IDEA Group).
- Muhammad Sabri, Sahrir & Nor Aziah, Alias (2011). *A study on Malaysian language learners' perception towards learning Arabic via online games*. GEMA Online Journal of Language Studies, volume 11(3), pp. 129-145, September 2011 (SCOPUS-indexed)
- Sahrir, Muhammad Sabri and Alias, Nor Aziah and Ismail, Zawawi and Osman, Nurulhuda (2012) *Employing design and development research (DDR) approaches in the design and development of online Arabic vocabulary learning games prototype*. TOJET: The Turkish Online Journal of Educational Technology, 11 (2), pp. 108-119. ISSN Old (1303 - 6521), New: (2146-7242) – (ISI/SSCI-indexed)
- Sahrir, Muhammad Sabri and Yusri, Ghazali (2012). *Online vocabulary games for teaching and learning Arabic*. GEMA Online Journal of Language Studies, 12 (3), pp. 961-977. ISSN 1675-8021 (SCOPUS-indexed)
- Sahrir, Muhammad Sabri (2013) *Al-af'aaab al-lughawiyah al-muhausabah fi ta'allum al-lughah al-arabiyah li an-naatiqin bi ghayriha bayna al-nazariyyah wan al-fatbi'iq: al-jaami'ah al-islamiyyah al-salamiyah bi Maaliziya namudhazan*. Journal of Faculty of Dar Al Uloom, Egypt, 28, pp. 1-15. ISSN 6867-1999
- Sahrir, Muhammad Sabri (2013) *Rekabentuk permainan bahasa Arab komputer dalam pembelajaran bahasa Arab di kalangan para pelajar peringkat permulaan di UIAM dari tahun 2008 hingga 2011*. Special Bulletin by Saudi Cultural Attache in Malaysia, p. 13.
- Sahrir, Muhammad Sabri and Alias, Nor Aziah (2012) *A design and development approach to Researching Online Arabic Vocabulary Games Learning in IIUM*. Procedia - Social and Behavioral Sciences, 67, pp. 360-369. ISSN 16770428
- Catalogued in the National Grassroot Innovation Databank of Yayasan Inovasi Malaysia (ONLINE DATABASE).
- SILVER : Invention, Innovation and Design – Special Edition (IID-SE 2010), UITM Shah Alam.
- SILVER : IIUM Research, Invention and Innovation Exhibition (IRIE) 2011, International Islamic University Malaysia (IIUM).
- BRONZE : Islamic Innovation Expo 2011 (i-Inova 2011), Indoor Nilai Stadium, organised by USIM and MoHE.
- BRONZE : IIUM Research, Invention and Innovation Exhibition (IRIE) 2012, International Islamic University Malaysia (IIUM)
- SILVER : National University Carnival of E-Learning (NUCEL 2014), organised by UITM, MEIPTA and MoE.

CONCLUSION

The prior needs analysis for the design and development of this games prototype was conducted among 113 out of 133 learners, and the correlational analysis was conducted after completion of this prototype among 100 learners in 3 different academic semesters in 2011. The final report was reported in a mixed method evaluation including learners' perception, concentration, immersion and knowledge improvement and qualitative findings from interview sessions, think-aloud methods, open-ended questionnaires, testimonials and class observation.

CONCLUSION

This paper provides the ideas of exploring the potential of integration of multimedia learning applications in the participation of research and innovation exhibitions and competitions locally and internationally. Such efforts should be initiated by the researchers and faculty members as well in order to generate new innovative research ideas and products especially in the teaching and learning Arabic language to make it at the same par and level with other fields of specialization and knowledge. The teaching and learning Arabic language should make significant transformation and contributions to portray better prospects and future to the researchers, teacher and learners in this field in addition to the traditional method of teaching and learning in Arabic.

REFERENCES

- Pollan, Michael. *The Omnivore's Dilemma: A Natural History of Four Meals*. New York: Penguin, 2006.
- Aldalalah, O, Fong, S.F. & Ababneh, W.Z. *Effects of multimedia-based instructional designs for Arabic language learning among pupils of different achievement levels* International Journal of Human and Social Sciences. Vol. 5(5), 1077-1083, 2010.
- Al-Harak, Hesham Muhammed. *Internet in education - E-school project. Informatics network news*. Retrieved July 17, 2003 from <http://www.annabaa.org/nbanews/24/096.htm>
- Ashinida Aladdin, Afendi Hamat & Mohd. Shabri Yusof. *Penggunaan PBBK(Pembelajaran bahasa berbantuan komputer) dalam pengajaran dan pembelajaran bahasa Arab sebagai bahasa asing: Satu tinjauan awal*. GEMA Online® Journal of Language Studies, 4(1), 1-20, 2004
- Ditter, E. *Technologies for Arabic language teaching and learning*. In K. M. Wahba, Z. A. Taha & L. England (Ed.). *Handbook for Arabic language teaching professionals in the 21st century*, pp. 239-252, 2006. New Jersey, USA: Lawrence Erlbaum Associates, Inc.
- Mayer, R. & Moreno, A. *Split-attention effect in multimedia learning: evidence for dual processing systems in working memory*. Journal of Educational Psychology. Vol. 90, 312-320, 1998
- Mayer, R.E. *Multimedia Learning* (9th edition). New York, United States: Cambridge University Press, 2001
- Mohd Feham Mohd Ghalib & Isarji Sarudin. *On-line Arabic: Challenges, limitations and recommendations*. Proceedings of National Conference on Teaching and Learning in Higher Education, Universiti Utara Malaysia, Kedah 231-239, 2000
- Mohd Feham Mohd Ghalib. *The design, development and testing on the efficacy of a pedagogical agent on the performance and program rating scores among students learning Arabic*. Unpublished Ph.D. dissertation, Universiti Sains Malaysia, 2006

- Muhammad Sabri Sahrir & Nor Aziah Alias. *A study on Malaysian language learners' perception towards learning Arabic via online games*. GEMA Online® Journal of Language Studies. Vol.11 (3), 129-145, 2011
- Muhammad Sabri Sahrir & Ghazali Yusri Abd Rahman. *Online Vocabulary Games for Teaching And Learning Arabic*. GEMA Online® Journal of Language Studies. Vol.12 (3),961-977, 2012
- Muhammad Sabri Sahrir, Nor Aziah Alias, Zawawi Ismail & Nurulhuda Osman. *Employing Design and Development Research (DDR) Approaches in the Design and Development of Online Arabic Vocabulary Learning Games Prototype*. Turkish Online Journal of Educational Technology (TOJET). Vol. 11(2), 108-119, 2012
- QS Top Universities. Rating Universities on Innovation: QS Stars. Retrieved on 21th of March 2014 from <http://www.topuniversities.com/qs-stars/rating-universities-innovation-qs-stars>
- Vincent, Pang, Lee, Kean Wah, Tan Choon Keong & Syukery Mohamed. *E-learning initiatives in educating student teachers*. GEMA Online® Journal of Language Studies. Vol. 5(2), 15-27, 2005
- Zamri, Mahamod & Nur Aisyah Mohamad Noor. *Persepsi Guru Tentang Penggunaan Aplikasi Multimedia Dalam Pengajaran Komponen Sastra Bahasa Melayu*. GEMA Online® Journal of Language Studies. Vol. 3 (11), 163-177, 2011
- Zawawi Ismail. *Penilaian pelaksanaan kurikulum kemahiran bertutur bahasa Arab komunikasi di Sekolah Menengah Kebangsaan Agama. – Evaluation of implemented curriculum of speaking skill in Arabic communicative subjects in religious secondary schools*. Unpublished Ph.D Dissertation, Universiti Kebangsaan Malaysia, Bangi, Selangor, Malaysia, 2008