An Ideal Healthy Environment for Learning Using Technology
A case study for
Development and Continuous Education Center- Baghdad University

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Abstract

This paper outlines the opportunities of academic programs that Development and Continuous Education Center (DCEC) has put forward for teaching and learning that Focusing on a particular aspect of professional development using Information and Communication Technology (ICT) for education. Several selective programs within the privileges of high quality depending on the use of cutting-edge technologies in the field of modern education like Iraqi virtual Scientific library (IVSL), Open Course Ware OCW-MIT and on-line training courses, has aimed at enhancing academic performance of the faculty members at Baghdad university and other Iraqi universities through participation in sustainable development programs. These training programs require scientific planning and strategy which provides an opportunity to develop their skills and raise the quality of teaching performance, and promote the research skills. The implemented programs has been studied and monitored for the period before and after the war at 2003. An important results show that ICT can play a major role for development Iraqi education system.

1. Introduction:

In a world, where knowledge is our main asset and learning becomes the most important process, training programs are

constantly looking for the right practices to rehabilitate and develop the future teachers and students. Teaching enterprises demand graduates to become true experts and to create trainees learning experiences that address the needs of the global marketplace.

The research sheds some light on the trends of the change in the education and training curricula and on the features of the change in the platform for training courses in language education for professors and teachers working in the different sectors at Baghdad University.

This research refers to the analysis of the Platform training and orientation sessions held by the Development and Continuing Education Center at Baghdad University for the period (2000-2009) and to the available curriculum in the field of advanced technology and modern education methods used in methods of teaching courses for teaching staff who are master and PhD holders.

Development and Continuous Education Center at Baghdad University was established in 1983. Its Objectives are:

1. Lifelong learning (on job training).
2. Improving the quality and efficiency of education and training.
3. Enhancing creativity and innovation, at all levels of education and training.
4. Promoting change in the roles of Technology By:
   - Access to new Sources of Information.
   - Knowledge transfer.
   - Professional Development.
   - New Learning Experiences.

In award ceremony at Baghdad University (Jan 2010), the Steering Scientific Committee has described the Development and Continuous Education Center (**DCEC**) as one of the major typical learning environment for technology and activity for continuing professional development.

2. Academic Training Programs

The DCEC with professional excellent teaching is planning for choosing and using effective educational technologies. DCEC Senior Instructional Developer in Blended Learning can advise the participants on how online course environments and the face to face classroom can support one another in teaching methods.

As the DCEC is firmly rooted in a holistic perspective of wide training and lifelong learning, a series of program activities are

carried out to support a platform for educational training courses which offer theories and practices to assist access and use technology in higher education. A carefully selected listing program that includes courses and/or experiences aimed at preparing service providers for practice in the areas of assistive technology and rehabilitation teachers and professors is exhibited in Table 1.

Table 1. DCEC ICT Training programs, Initiative Partnerships, Benefits

Training of ICT programs	Initiative Partnerships	Benefits
Open Sources lectures 2006-2009	Baghdad University & Massachusetts institute of Technology & LINC-MIT	Teachers experiment with new instructional techniques
E. Libraries and Virtual libraries (IVSL) 2006-2009	Iraqi Virtual scientific Library & Sun Microsystems	Gain resources from ministries, research centers publishers and publications
Mirror Site Open Course ware (OCW) 2008-2009	Baghdad University & Massachusetts institute of Technology(MIT)	Subjects locally hosted at Servers contain More Than 1900 Full Courses
Interactive lab (Ilab) lectures MIT.Ilab 2008-2009	Baghdad University & Massachusetts institute of Technology(MIT)	Access to real labs directly and share components (Online)
Oregon-Iraq Guided Online English Studies Training 2008-2009	Oregon-Iraq Online teachers	Teach English Language by using new methods
Exploring WEB 2.0 , March 2009	Baghdad University & University of Oregon 2008-2009	Using Technical methods Web
Visiting professors Program 2008-2009	e-learning technology university of Canada, Baghdad University, MIT	Visiting Prof, to develop and Educate
ITP.TOEFL. 2009	Cooperating with International Universities	ITP. TOEFL Test for MSc ,PhD Research Studies missions

The key ingredient of a successful e-learning environment is interaction. Furthermore, the need to create active e-learning environments that involve learners interacting with the interface, the

technology, the content, educators and their fellow learners is paramount to successful e-learning. "The vehicle that allows you to bring life into online learning is interactivity" (Iverson, 2005,p.5) [1].

3. Adaptation of New Education Methodology at DCEC Training Courses (Facts and Numbers 2000-2009)

The DCEC Implementation Scheme has elaborated a strategic document focusing on what should be achieved through the learning environment for technology level and under DCEC leadership. It summarizes the goals and objectives of its relationship to other key education movements, and emphasizes the importance of partnership.

On Oct. 27/9/2003, the administration of DCEC adopted basic environment of Education for Sustainable Development designated as the leading center for promotion and coordination. The overall goal of the DCEC is to integrate the principles, values, and practices of sustainable development into all aspects of education and learning in order to encourage changes in behaviors that will create a more sustainable future in terms of environmental integrity, education viability, and a just society for present and future generations. The following is the completion rate.

> ➤ 2000-2009 Total graduated= (5910), professors and teachers (MSC, Ph.D.),
> ➤ 2003-2009; (4712) professor and teacher (MSC, Ph.D.) were trained on the use of technology methods in education lectures. [DCEC Annual report.2009][2].
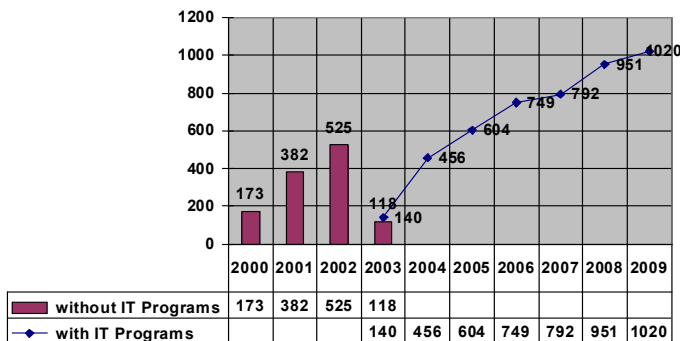

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
without IT Programs	173	382	525	118						
with IT Programs				140	456	604	749	792	951	1020

Figure 1. Training professors and Teachers Dealing with IT Programs statistics (2000-2009)

It can be notes that number of university professor those having the awareness about educational IT skills like e-learning and e-libraries are increased rabidly after 2003.

4. Online English Training Courses with Oregon University – USA

A Pilot Project with the University of Oregon in the USA: Online English as a Foreign Language Courses and Tandem Teacher Training 2008-2009, these courses were funded by a grant from the cultural office at US embassy at Baghdad.

Online learning can be a very professional experience, a very empowering experience that "*let teachers get what they need when they need it, in away that is accessible to them*". So DCEC presented an Online Infrastructure English language teaching (AEL) Courses (cooperating with University of Oregon) to learn English using web-based tools. These online training courses have the potential of a suitable cost over the long run while providing more uniform professional development experience, and they emphases on the learning language skills of teachers.

Table 2. Online English as a Foreign Language Courses and Tandem Teacher Training 2008-2009

Course	Expected No. of Participants
Three / ten week/ intermediate English as foreign language courses	(75) participants 2008-2009
Two / ten week/tandem teacher training courses	(50) participants 2008-2009
EFL Classroom 2.0 ; English foreign language Classroom	(25) Participants (2009-….)

The professors team who graduated from this program with big experiences and technical skills which help them to build work team to form On-line training program
The professors team who graduated from this program with big experience and new technical skills which help to build work team to form an on-line training programs and other new English training programs at DCEC starting from 2009 as shown in figure …

The participants at (Oregon-Iraq Online teachers) worked for the use of blended learning strategy and the introduction of information

technology in the educational environment of the *DCEC* (ICT for Education) by means of modern electronic communication (Web Classroom) exhibited:
1. The Iraqi culture in English
2. TOEFL Online preparation Course (New)

Table 3 English Language Training Courses, Total Participants (2009),

Courses	Total Training Courses	Total Participants
TOEFL Training	14 Courses	256 Participants
English language Training	14 Courses	187 Participants
ITP.TOEFL	10 Courses	250 Participants

5. Impact of Availability of the Electronic Resources (e-libraries) on the Iraqi Research Output (IVSL 2006-2009)

One crucial step toward bringing Iraqi researchers up to date - easy and safe access to scientific knowledge and developments has been taken, with the launch of the Iraqi Virtual Science Library (IVSL) in May. A broad public/private partnership led the way in building this digital library for Iraqi researchers, with participants from several U.S. government agencies, private companies, professional scientific associations, technology companies, scientific publishers and information providers. The library is available to Iraqi universities, research institution and the Ministries of Higher Education and Science & Technology. IVSL provides nearly 80% of Iraq's scientists and university students with access to full-text technical articles from major publishers, training, online educational materials, and information on funding opportunities- the same level of scientific content available at top-tier universities in the United States. [3]

The Project Launched in January 2006, Search for sources of electronic information using the (IVSL: Iraqi Virtual Scientific Library) within the Global Partnership, in cooperation with ministries, associations, research centers and the role of international publishing provided by Baghdad University faculty professors and researchers [Bahaa. I. kazem, 2009].[4], about forty for IVSL training workshop has been implemented at Baghdad University and this effect directly on the IVSL usage parameters .

This tool offers Iraqi scientists, researchers, doctors and engineers access to a wide body of scientific research in fields critical to Iraq's reconstruction effort. It can serve as a vital tool for Iraq's economic

growth and the betterment of Iraqi's society for many generations to come *According to DCEC statistics (2006-2010):*

- ➢ The Total number of subscribers (users) of IVSL joint (universities & ministries)= [2006(1133) year/user; 2007(2206) year/user]; [2008 (5750) year/user]; [2009 (7933) year/user].
- ➢ The number of downloaded articles from IVSL is increased constantly with increasing the number IVSL users as shown in figure 2.

Also, Figure 2 shows that the scientific research output from Iraqi educational and research institutions is increased with increasing the number of downloaded articles from the international journals database available at IVSL for the same period 2006-2009.
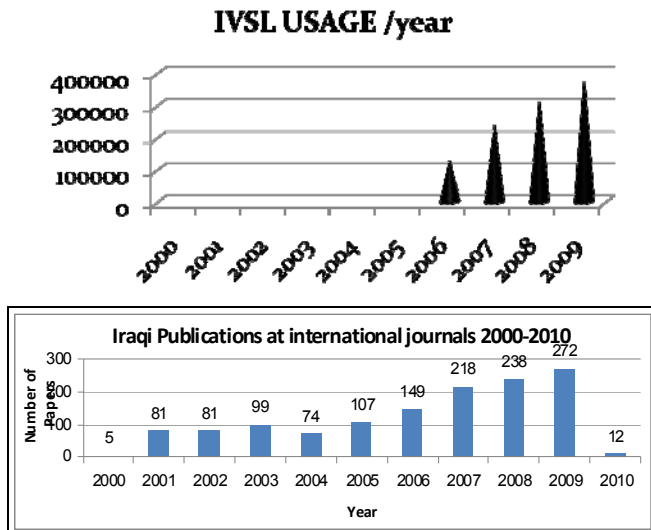

Figure 2. Number of IVSL Users (2007-2009), Total Number of Download Articles and its effect on the Iraqi research output at international Journals.

6. Open Source Educational Materials from MIT

More than 1900 full courses for undergraduate and graduate subjects locally hosted at local Servers at Baghdad University are available for sharing.

- ➢ Location of OCW-MIT mirror web site servers at Baghdad University (local server /one IP for each college)

- ➢ The Total Number of Distributed OCW.MIT Servers to Colleges & Centers at the : 22
- ➢ Baghdad University: 16; [11 Colleges, 5 Centers in Al Jadiria establishment].
- ➢ Baghdad University: 6;[2 Colleges in Bagdad city, 4 Iraqi Governorates].

   DCEC intended to seek as a part of his scheme to expanding the distribution of OCW.MIT servers for the rest of the faculties and departments of Iraqi universities.
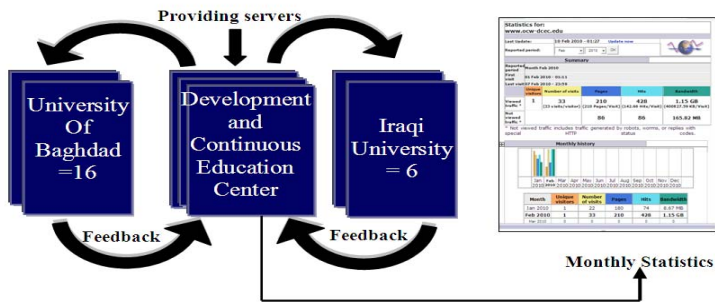

Figure 3. OCW.MIT mirror web site servers for Iraqi Universities

   DCEC adopted "Open Course ware" as one of rehabilitation training Courses for teachers:

1. These lectures were used to illustrate the teachers' skills to develop their technical abilities by using the available methods to run and explain the possible techniques in side the classroom.

2. Using lectures to support and achieve school sections in side the Iraqi Colleges and Universities depending on the available techniques found in these usual in OCW terms.

   According to the available monthly usage reports for OCW-MIT at Baghdad university the are Some courses recorded highest usage, such as :[Chemistry, Biological Engineering, Mathematics, Mechanical Engineering , Earth, Atmospheric, and Planetary Sciences courses percents according to other courses,, while some of courses didn't get chance to use. Table 4.

Table 4. The usage statistics for OCW-MIT Courses by Iraqi Universities 2008-2009

	Courses by Departments	Usage percent	The indicators of
1	Aeronautics and Astronautics	30%	
2	Anthropology	20%	
3	Architecture	55%	
4	Athletics, Physical Education and Recreation	40%	
5	Biological Engineering	80%	
6	Biology	80%	
7	Brain and Cognitive Sciences	40%	
8	Chemical Engineering	40%	
9	Chemistry	90%	
10	Civil and Environmental Engineering	70%	
11	Comparative Media Studies	80%	
12	Earth, Atmospheric, and Planetary Sciences	80%	
13	Engineering Systems Division	40%	
14	Experimental Study Group	40%	
15	Foreign Languages and Literatures	-	-
16	Health Sciences and Technology	40%	
17	History	-	-
18	Linguistics and Philosophy	40%	
19	Literature	60%	
20	Materials Science and Engineering	40%	
21	Mathematics	90%	
22	Mechanical Engineering	70%	
23	Media Arts and Sciences	-	-
24	Music and Theater Arts	30%	
25	Nuclear Science and Engineering	5%	
26	Physics	50%	
27	Political Science	20%	
28	Science, Technology, and Society	-	-
29	Sloan School of Management	-	-
30	Special Programs	-	-
31	Urban Studies and Planning	-	-
32	Women's and Gender Studies	30%	
33	Writing and Humanistic Studies	-	-

7. Interactive Lab Experiment 2008-2009 with iLab-MIT

To maintain a sufficient level of expertise in a situation of continuous competition and to ensure the motivation and commitment of their employees, employers in areas suffering from a labor shortage, especially in the IT field, have been forced to create and support education of their employees that takes place while they are working. Especially in Lapland, in the face of negative relocation, the public educational lab system needs to participate in and support this development. Examples of this include various models of re-education, for technicians and engineers, and various types of EU-financed development projects, like in the new media sector.[EduTeach.Wiki] [5]

Development Center held's workshops to train teachers and students in the use of technical laboratories and apply the experience online and follow-up program.

Table 5. Interactive Lab Experiment 2008-2009

| department of Colleges	Partnership in the initiative and Local	Levels
Micro electronics (UOB)	DCEC- UOB , MIT,Massachusetts	2nd level Computer Engineering Department (UoB)

8. ICT Programs Evaluation

The DCEC is studying the levels of development and evaluation of programs offered by the training courses, quality and quality usually through the results achieved after the distribution of questionnaire form at the end of each course.

8.1 Academic accreditation standards in selected programs:

➢ Activation of areas of cooperation, integration and exchange of experiences between universities in the world

➢ Prepare periodic reports to assess the effectiveness of the program based on statistical data.

➢ Study the obstacles in the implementation of programs and ways to address them.

➢ Provide administrative and technical experience and academic nature of the programs required by the implementing.

9. The Results

DCEC Center at Baghdad University has achieved development education programs, a large proportion of Aides in providing technological environment adopt the approved programs in terms of quality and excellence in the years (2003-2009) and seeks to ensure continuity and sustainability of programs and curricula provided for qualifying courses in teaching methods in high quality.
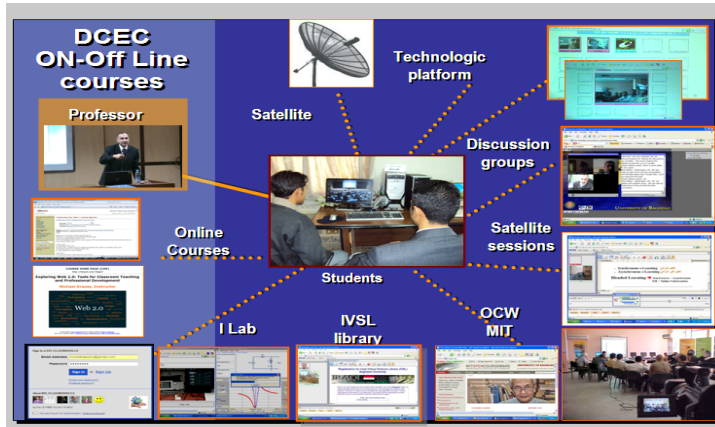
10. Recommendation

1. Develop the infrastructure of Baghdad University and other Iraqi universities to ensure communication with each other to create a healthy electronic learning environment.
2. Preparation of the reality of the development budget increased annually for the development of university programs dedicated to e-learning.
3. Encourage teachers to develop curricula and educational content in a way and global measurements of modern education.
4. Adopt the principle of blended learning (Blended learning) in education in the coming years.
5. Preparing lectures suggestions: Cooperation /agreement with the International universities /Institutions in preparing and presenting a periodic basis e- lectures specialized in knowledge fields (once a week, or monthly) at least.
6. Exchange teachers using of their experiences in different fields.

References

[1] Iverson, K. M. "E-learning games: interactive learning strategic for digital delivery. Upper saddle River ", N.J.: Pearson/prentice Hall, 2005 , pp.5.

[2] "DCEC Annual Report - Baghdad University", Continuing Education Symposium, Development and Continuous Education Center, 2009.

[3] "A Web portal. and much more: Iraqi Virtual Science Library will help rebuild Iraq for the 21st century", Knowledge Link SM newsletter from Thomson Scientific www.scientific.thomson.com/newsletter, 2006.

[4] Bahaa. I . kazem , "IVSL usages in Baghdad University. Baghdad University", Informatics Symposium and its Application, 2009.

[5] "Learning environment , EduTeach.Wiki". Visit online site,2010:
    http://edutechwiki.unige.ch/en/Category:Instructional_design_models