EVALUATING THE USE OF WEBCT IN TEACHING AT THE ISLAMIC UNIVERSITY OF GAZA

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ABSTRACT

This research aimed at evaluating the use of WebCT in teaching at the Islamic University of Gaza (IUG) by revealing its advantages and difficulties from the perspectives of: professors, students, and technicians.

To fulfill the aim of the research, the researcher followed the descriptive analytical method. They prepared three questionnaires which distributed to the participants. Each one consists of two domains: advantages and difficulties of using WebCT in teaching. Three groups: professors, students and technicians at IUG; were participated to complete the research questionnaires. Frequency, percentage and relative mean were used to analysis the data statistically.

The results showed that:

- Professors' responses on the advantages of using WebCT in university teaching were scored high ratio for strongly agree and agree, which means that professors got a lot of advantages out of using WebCT in teaching, such as: motivating them to use recent technology and developing their computer skills.
- There were some difficulties in using WebCT according to Professors' responses, such as: needing effort and time to design effective WebCT course and difficulties in tracking huge number of students in many courses.
- There was a general agreement among students on the advantages of using WebCT in teaching, such as: decreasing the opportunity for practicing book-based learning model and developing students' computer skills.
- There were no serious difficulties facing IUG students in using WebCT, except: needing internet access to skim electronic resources and lacking of well-equipment laboratories parallel with students' huge numbers.
- Technicians' responses on the advantages of using WebCT in teaching were scored high ratio for strongly agree and agree choices, for example: giving opportunity to store/retrieve a lot of questions and providing ability to reveal and hide course contents.
- There were some serious difficulties in using WebCT according to technicians' responses, which are: no support for Arabic language in Glossary tool, absence of voice chat between professor and his students, weakness of users' (professors and students) computer skills, and negative attitude toward employing e-learning from the perspectives of some professors and students.

KEYWORDS

Evaluation means revealing the advantages and difficulties of using WebCT as instructional enhancement tool from the perspectives of professors, students, and technicians at the Islamic University of Gaza.

WebCT (Web Course Tools) is a Web-based course management system that allows faculty to create web sites for courses that enhance or deliver course instruction. Students enrolled in courses supported with WebCT have access to support materials posted by the instructor.

1. INTRODUCTION

E-learning becomes one of the widely used concepts among higher educational institutes. Many universities and colleges have paid serious attention to this vital field, and therefore; the educators have to adjust their experience and adapt themselves to the new challenges made by recent technology. In addition, the special conditions surrounding the local community in Palestine increase the difficulties of professors as well as students in reaching the university.

Another point that could be considered as an advantage for applying using technology in education is the growth of technical experience for both professors and students. This experience could be easily observed in terms of using computer software and familiarity with the internet and other knowledge resources (Bates, 2001, p 15).

The Islamic University of Gaza (IUG) is one of these academic institutions which influenced by the above mentioned local and global factors, and therefore; the chance for embedding the high technology in the academic life is increasing more and more.

Five years ago, some of IUG professors did individual attempts in order to apply the techniques of virtual learning environments or course management systems in the instructional process. Based on procedures which have been followed at IUG, WebCT was the most suitable e-learning solution among e-learning tools. The decision had an effect in getting a license copy of WebCT then conducting training workshops for faculty members. Nowadays, there are more than one hundred and fifty courses distributed among different IUG majors and faculties were designed in WebCT (e-learning center, 2004).

Up to this date of using WebCT at IUG, there is an absence in the studies done for evaluating the use of WebCT except Al-Masri study (2004) which aimed at evaluating the role of using WebCT in developing effective TEFL course at IUG. So the researchers are become increasingly interested in doing this research. Although there are several studies concerned with revealing the role of using WebCT in teaching at different universities/schools. Some of these studies were conducted to achieve different purposes: evaluating the use of WebCT in teaching such as Al-Ayyat et al (2003) or evaluating the role of using some tools such as Morss and Feleming (1998), or revealing the attitude of students or professors toward using it such as Burgess (2003) and Pauley (2000).

2. QUESTIONS OF THE RESEARCH

Inasmuch as the purpose of this research is to determine the advantages and difficulties of using WebCT in teaching at IUG, the research will address the following research questions:

1- What are the advantages of using WebCT in teaching at IUG from the professors' perspective?
2- What are the difficulties of using WebCT in teaching at IUG from the professors' perspective?
3- What are the advantages of using WebCT in teaching at IUG from the students' perspective?
4- What are the difficulties of using WebCT in teaching at IUG from the students' perspective?
5- What are the advantages of using WebCT in teaching at IUG from the technicians' perspective?
6- What are the difficulties of using WebCT in teaching at IUG from the technicians' perspective?

3. PROCEDURES OF THE RESEARCH

The following part describes the procedures that used to achieve research purposes. Specifically, this part presents description of research: methodology, limitations, participants, instruments and data analysis.

3.1 Methodology of the Research

The descriptive analytical research is followed to answer research questions. The researchers collected the needed information by distributed questionnaires for: professors, students, and technicians.

3.2 Limitations of the Research

This research is limited to evaluate the use of WebCT in teaching at IUG from perspectives of: professors who used WebCT in teaching their courses in the second semester 2004 – 2005, students who enrolled in these courses, and technicians who worked at the e-learning center to help professors and students to use the program.

3.3 Participants

The research included three main groups of participants. First, the population of the research was: all professors (N=10) used WebCT in teaching their courses in the second semester 2004 – 2005, all students (N=163) enrolled in the WebCT courses in the second semester 2004 – 2005- they are male and female students from different levels and faculties; and all technicians (N=5) worked at e-learning center. Due to the smallest number of each group, the population
of the research represents the sample (survey sample). The following table shows the distribution of groups and number of participants who completed and returned the questionnaire given to the target population.

Table (1)

Distribution of the population

Category	Population	Participants	Percentage
Professors	10	6	60%
Students	163	113	69%
Technicians	5	4	80%

Note: one of the professors and technicians were excluded because they are the researchers.

3.4 Instruments of the Research

Three questionnaires were used for data collection. All of the questionnaires are divided into two domains: the advantages and the difficulties of Using WebCT in university teaching. The questionnaires completed were divided into five-point on Likert-scale responses (Strongly Agree; Agree; Neutral; Disagree; Strongly Disagree). The first questionnaire (for professors) consists of (34) items, (20) items under the advantages of Using WebCT and (14) items under the difficulties. The second questionnaire (for students) consists of (31) items, (23) items under the advantages of Using WebCT and (8) items under the difficulties. The third questionnaire (for technicians) consists of (31) items, (9) items under the advantages of Using WebCT and (22) items under the difficulties.

3.4.1 Validity of Instruments

Six juries, who specialized in instructional technology and have experience in e-learning, were asked to evaluate the content of the instrument and to comment on the clarity and appropriateness of the items.

3.4.2 Reliability of Instruments

Alpha was used to ensure the reliability of each domain separately and each questionnaire as a whole as shown in the following table.

Table (2)

Reliability of instruments

N	Domain	Items Number	Alpha
1	Advantages of Using WebCT in teaching at IUG from the professors' perspectives	20	%98
2	Difficulties of Using WebCT in teaching at IUG from the professors' perspectives	14	%98
The questionnaire as a whole		35	%98
3	Advantages of Using WebCT in teaching at IUG from the students' perspectives	23	%92
4	Difficulties of Using WebCT in teaching at IUG from the students' perspectives	8	%78
The questionnaire as a whole		31	%85

5	Advantages of Using WebCT in teaching at IUG from the technicians' perspectives	9	%93
6	Difficulties of Using WebCT in teaching at IUG from the technicians' perspectives	22	%97
The questionnaire as a whole		31	%95

As it is clear in the previous table (2) Alpha percentages are high for each domain and questionnaire, which satisfy the researchers to depend on the results of the questionnaires.

3.4.3 Data Analysis

The data were analyzed by using frequencies, percentages, and relative mean.

4. RESULTS

The results can be outlined as followed:

4.1 Advantages of Using WebCT in Teaching at IUG from Professors' Perspectives

Table (3)

Frequency, percentage and relative mean for advantages of using WebCT in teaching at IUG from professors' perspectives

N	Advantages	Frequency	Percentage	Relative mean	Degree of Agreement
1	Encouraging professors to specify their learning aims	25	83.3	4.1	Agree
2	Helping professors to organize their learning material	28	93.3	4.7	Strongly Agree
3	Encouraging professors to prepare and develop their learning material	27	90	4.5	Strongly Agree
4	Offering different evaluation tools	22	73.3	3.7	Agree
5	Providing opportunity for using different teaching methods and techniques in presenting learning material	23	76.6	3.8	Agree
6	Motivating professors to use recent technology	29	96.6	4.8	Strongly Agree
7	Encouraging professors to develop their searching skills	23	76.6	3.8	Agree
8	Developing professors' culture in terms of learning material and related subjects	23	76.6	3.8	Agree
9	Producing integrated system for the learning process	23	76.6	3.8	Agree
10	Encouraging innovation and creation	24	80	4	Agree
11	Including different tools for tracking students	28	93.3	4.7	Strongly Agree
12	Providing flexibility in planning and designing activities	26	86.6	4.3	Agree
13	Overcoming learning process obstacles in the Gaza strip such as closures	27	90	4.5	Strongly Agree
14	Giving professors the ability to reveal and hide learning material which encourage students for continuous follow up	26	86.6	4.1	Agree
15	Giving opportunity to exchange experiences among curricula	27	90	4.5	Strongly

	designers and technicians				Agree
16	Motivating professors to develop their computer skills	29	96.6	4.8	Strongly Agree
17	Allowing professors to reuse learning material several times	26	86.6	4.3	Agree
18	Facilitating storing and retrieving huge amount of information	26	86.6	4.3	Agree
19	Reducing the explaining material times	24	80	4	Agree
20	Providing opportunity for implementing some supplementary and remedial activities	21	70	3.5	Neutral

Table (3) shows that the vast majority of professors' responses on the advantages of using WebCT in teaching were scored high ratio for strongly agree and agree choices. Highest ration is (96.6%) for motivating professors to use recent technology and develop their computer skills. The lowest one is (70%) for providing opportunity for achieving some supplementary and remedial activities.

It may be due to the fact that WebCT indicates many tools, such as: e-mail, e-references, chat, and whiteboard which provide professors to deal with recent technology. Moreover, to plan or develop web-course, professors need to use different computer programs, such as: PowerPoint, Word, and Front Page which automatically develop their computer skills.

4.2 Difficulties of Using WebCT in Teaching at IUG from Professors' Perspectives

Table (4)

Frequency, percentage and relative mean for difficulties of using WebCT in teaching at IUG from professors' perspectives

N	Difficulties	Frequency	Percentage	Relative mean	Degree of Agreement
1	No copyrights availability for contents	25	83.3	4.1	Agree
2	Needing effort and time to design effective WebCT course	27	90	4.5	Strongly Agree
3	Difficulties in tracking huge number of students in many courses	26	86.6	4.3	Agree
4	Needing high level of skills to design courses by using technology	23	76.6	3.8	Agree
5	Demanding on English language	18	60	3	Neutral
6	Needing complicated steps to perform specific task	17	56.6	2.8	Neutral
7	Ignoring the role of e-learning	19	63.3	3.3	Neutral
8	Needing for basic computer necessary skills	16	53.3	2.6	Neutral
9	Needing for internet subscriptions to skim e-sources	20	66.6	3.3	Neutral
10	Avoiding some professors to use recent instructional technology	16	53.3	2.6	Neutral
11	Lacking of sufficient degree of suitability for all courses	19	63.3	3.1	Neutral
12	Lacking of e-library free access	23	76.6	3.8	Agree
13	Needing for specialists to design learning contents	24	80	4	Agree
14	Needing for instructional technology experts	21	70	3.5	Agree

As it is clear in table (4) professors' responses are vary between (90%- 53.3%) which indicates that there are some difficulties in using WebCT. The major difficulty according to professors' responses is the effort and time needed to design effective WebCT course; it is scored (90%). This result could be due to time required

for preparing a high quality learning content to teach it traditionally needs time. So, designing and implementing it by using WebCT needs additional time.

Needing for basic computer necessary skills and avoiding some professors to use recent instructional technology were scored (53.3%) which means that there are no difficulties related to these two points. It could be results of e-learning center at IUG facilitates. It presents different training computer courses for professors to develop their computer basic skills. In addition, the technical team at e-learning center supports professors in designing their courses.

4.3 Advantages of Using WebCT in Teaching at IUG from Students' Perspectives

Table (5)

Frequency, percentage and relative mean for advantages of using WebCT in teaching at IUG from students' perspectives

N	Advantages	Frequency	Percentage	Relative mean	Degree of Agreement
1	Presenting learning contents in interactive and interesting form	456	80.7	4	Agree
2	Presenting learning contents in summarized and focused form	461	81.5	4.1	Agree
3	Increasing co-operative learning among students in different departments through communication tools	458	81.1	4.1	Agree
4	Developing self learning skills for students	457	80.8	4	Agree
5	Providing opportunity for developing students creativity and innovation	479	84.7	4.2	Agree
6	Developing self confidence for students	464	82.1	4.1	Agree
7	Decreasing the opportunity for practicing book-based learning model	484	85.6	4.3	Agree
8	Providing self evaluation tools after every learning units	472	83.5	4.2	Agree
9	Reinforcing students through revealing the answers directly	450	79.6	4	Agree
10	Presenting supplementary remedial interesting contents	421	74.5	3.7	Agree
11	Offering learning opportunity for shying students through indirect communication tools	462	81.7	4.1	Agree
12	Providing rich resources through adding links to relevant knowledge resources	438	77.5	3.9	Agree
13	Meeting students' individual differences through presenting audio, visual, and audiovisual activities	391	69.2	3.5	Agree
14	Including continuous guidance for students	426	75.4	3.8	Agree
15	Increasing students' success opportunity through students' continuous evaluation	439	77.7	3.9	Agree
16	Providing interesting in learning process	454	80.3	4	Agree
17	Achieving continuous learning through presenting many exercises	475	84.1	4.2	Agree
18	Motivating students to participate in learning process through exposing his comments in discussion tools	478	84.6	4.2	Agree
19	Presenting different sources of knowledge	443	78.4	3.9	Agree
20	Developing students' research skills	467	82.6	4.1	Agree
21	Developing students' computer skills	512	90.6	4.5	Strongly Agree

22	Helping low achievement students to correct their mistakes without shying from their classmates	475	84.1	4.2	Agree
23	Developing creative thinking	458	81.1	4.1	Agree

The results in table (5) show a general agreement among students on the advantages of using WebCT in teaching. The responses concentrated on agree choice. Most students (90.6%) strongly agree using WebCT developing their computer skills. Few students (69.2) agreed that using WebCT meets students' individual differences through presenting audio, visual, and audiovisual activities.

This general agreement reflects the high level of positive attitude towards employing recent instructional technology in teaching among students. Also, it reflects the high awareness among IUG students towards the role of recent technology in facilitating learning process. In addition e-learning center made a lot of workshops for students to emphasis the role of e-learning.

Results have indicated that students encourage the use of WebCT at IUG. These results resemble the findings of Al-Masri (2004), Al-Ayyat et al (2003), Burgess (2003), Pauley (2000), and Morss and Fleming (1998) studies.

4.4 Difficulties of Using WebCT in Teaching at IUG from Students' Perspectives

Table (6)

Frequency, percentage and relative mean for difficulties of using WebCT in teaching at IUG from students' perspectives

N	Difficulties	Frequency	Percentage	Relative mean	Degree of Agreement
1	Facing technical difficulties in using the program	324	57.3	2.9	Disagree
2	Facing difficulties in stating well-defined ideas through communication tools	364	64.4	3.2	Disagree
3	Repeating complicated steps to perform specific tasks	374	66.1	3.3	Disagree
4	Depending on English language	307	54.3	2.7	Strongly Disagree
5	Ignoring the role of e-learning	344	60.8	3	Disagree
6	Lacking of well-equipped computer laboratories	417	73.8	3.7	Neutral
7	Needing to internet access to skim e- resources	447	79.1	4	Agree
8	Weakness of students' computer skills	386	68.3	3.4	Disagree

Out of the previous table (6), one can notice that students' responses concentrate on disagree choice which indicate that there are no serious difficulties facing IUG students in using WebCT. Except, they need internet access to skim e-resources and lacking of well-equipped computer laboratories parallel with students' huge number. This result confirms with Al-Masri (2004). But English language does not present difficulty in using WebCT. It could be related to the students' level in English language and their specialization. Availability of technicians, who help professors and students to use the program, leads to overcome technical difficulties of using the program.

4.5 Advantages of Using WebCT in Teaching at IUG from Technicians' Perspectives

Table (7)

Frequency, percentage and relative mean for advantages of using WebCT in teaching at IUG from technicians' perspectives

N	Advantages	Frequency	Percentage	Relative mean	Degree of Agreement
1	Giving the opportunity for designing a well-organized course	17	85	4.2	Agree
2	Has a flexibility in terms of page design, pictures, text blocks, etc	13	65	3.2	Disagree
3	Offering comprehensive tools for content interactive delivery	16	80	4	Agree
4	Giving opportunity to store/retrieve a lot of questions	18	90	4.5	Strongly Agree
5	Giving opportunity for students to design their personal homepages inside the course	15	75	3.7	Agree
6	Providing ability to reveal and hide course contents	18	90	4.5	Strongly Agree
7	Facilitating the use of WebCT for disabled students through accessibility	16	80	4	Agree
8	Providing technical support from WebCT company through "Ask Dr. C" Service	17	85	4.3	Agree
9	Encouraging exchange experiences among technicians at different universities	16	80	4	Agree

Table (7) shows technicians responses, which indicate that the most common advantages of using WebCT are: giving opportunity to store/retrieve a lot of questions, and providing ability to reveal and hide course contents. These services could be accessible by any professor. However the technicians' responses to item (2), has a flexibility in terms of page design, pictures, text blocks, etc; scored (65%) which reveals that most of them find it disadvantage. It could be because this task is not easy achieved by the technicians themselves, so it does not easy for professors who do not specialized in computer.

4.6 Difficulties of Using WebCT in Teaching at IUG from Technicians' Perspectives

Table (8)

Frequency, percentage and relative mean for difficulties of using WebCT in teaching at IUG from technicians' perspectives

N	Difficulties	Frequency	Percentage	Relative mean	Degree of Agreement
1	Low efficiency in Arabic language support	10	50	2.5	Disagree
2	A lot of steps needed for uploading content material	13	65	3.3	Disagree
3	No support for Arabic language in Glossary tool	17	85	4.3	Agree

4	Low efficiency for automated search	10	50	2.5	Disagree
5	Absence of voice chat between professor and his students	17	85	4.3	Agree
6	No web/video conference availability	17	85	4.3	Agree
7	Limited number of questions types in Quizzes	9	45	2.3	Strongly Disagree
8	A little bet differences between quizzes and self test tool	10	50	2.5	Disagree
9	Complications of files uploading process	9	45	2.3	Strongly Disagree
10	Difficulties in managing students through “manage course” link	10	50	2.5	Disagree
11	Absence of course template	16	80	4	Agree
12	Difficulties of wizard interface	15	75	3.8	Agree
13	Weakness of "HTML editor"	10	50	3	Disagree
14	Low portability for HTML editor	9	45	2.3	Strongly Disagree
15	Ignoring the role of e-learning	11	55	3.3	Disagree
16	Needing of instructional technology experts	14	70	3.5	Agree
17	Needing to internet access to skim electronic resources	13	65	3.3	Disagree
18	Needing well-trained experts to prepare learning material and using the program	12	60	3	Disagree
19	Weakness of users’ (professors and students) computer skills	17	85	4.3	Agree
20	Lacking of well-equipped computer laboratories	17	85	4.3	Agree
21	Negative attitude toward employing e-learning from the perspectives of some professors and students	17	85	4.3	Agree
22	Lacking of suitability in sufficient degree for all subjects	16	80	4	Agree

Table (8) shows a general agreement on some difficulties of using WebCT from the technicians’ perspectives. Where the majority of responses (45%) approved that there are no difficulties in the following points: the first one is the limited types of questions in Quizzes; the second is the complication of files uploading process, and the third one is the low portability for HTML editor. These results could be justified consequently as: for the first one, there are five types of questions such as: matching, calculating, multiple choices, short answer, and paragraph, although there is a possibility to create true and false question from multiple choice. Also, practicing the process of files uploading make it easier for the professors and students as well. Finally, Java based applications now becomes so popular and Java Virtual Machine (JVM) can be downloaded for free in order to overcome this difficulty.

However there are some serious difficulties in using WebCT according to technicians’ perspectives which are: no support for Arabic language in Glossary tool, absence of voice chat between professor and his students, no web/video conference availability, weakness of users’ (professors and students) computer skills, lacking of well-equipped computer laboratories, and negative attitude toward employing e-learning from the perspectives of some professors and students. These results may be due to the fact that WebCT was developed by foreigners and Arabic plug-in is recently released by WebCT, Inc. Also, IUG is committed to enhance the academic life and therefore, IUG is going to increase the number of computer laboratories as well as the public awareness/skills toward e-learning in specific and computer using in general.

5. CONCLUSION AND RECOMMENDATIONS

This study conducted to reveal the advantages and difficulties of using WebCT in university teaching from different perspectives: professors, students and technicians. The participants’ responses to the study questionnaires showed general agreement on the advantages of using WebCT in university teaching. However, there were some difficulties, such as: needing effort and time to design effective WebCT course, difficulties in tracking huge number of students in many courses, needing internet access to skim electronic resources, and lacking of well-equipment laboratories parallel with students’ huge numbers.

The researchers recommended IUG to increase the number of well equipped computer laboratories with free Internet subscription, encouraging professors to design their courses and viewing them in an interesting way

through WebCT by giving the creative professors prizes. This study evaluated the use of WebCT as enhancement tool. Further researches needs to evaluate the use of WebCT in teaching online courses at IUG and other universities.

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