



Virtual class Room as an alternate platform – a case study of the use of Web-Ex Live teach and learn in the synchronous online environment

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Abstract: *Virtualizing the classroom is the best way to maximize time for busy students and still provide a quality educational experience. This research paper investigated the impact of the use of WebEx on graduate students' virtual learning using Web-Ex Live lectures. The study highlights the important factors that influence acceptance of virtual classroom learning among the graduate students in Open University Malaysia (OUM) hosted in Arab Open University (AOU), Bahrain branch. A self-administered questionnaire was used to gather the data. In this study, the researcher has measured and evaluated the impact of a number of factors on students' attitude towards acceptance of web-ex tool in their graduate study. A quantitative research methodology is used based on a questionnaire survey. The result of this study highlights the importance and need of alternative learning methodologies in education industry.*

Keywords: *online learning, e-learning, Distance Learning, Web Conferencing, Online Classroom, WebEx*

I. INTRODUCTION

Arab Open University (AOU) Bahrain is Open University in Kingdom of Bahrain. In addition to the face-to-face on campus offerings, the hosted master program by Open University Malaysia (OUM) employs collaborative platforms using WebEx as virtual learning tool. [1] Virtual Classroom is a synchronous tool supported via online conferences using computers over the internet. The only requirement for the tutor/presenter and students are; broadband connection, a browser, a headset with microphone and a webcam (optional). Virtual Classrooms allow teacher and students to engage in live two-way audio, video (optional) and text chat. Also the teacher can share desktop, application or annotate the document whilst delivering the lecture. Students can ask questions by clicking on a 'hand' icon or respond to an instant poll. The entire classroom session can also be recorded for future reference. In AOUs hosted master program, the virtual classroom platform is considered as a practical option to conduct tutorials that involves real-time student and tutor interactions.[4][7] The ability of virtual classroom tool using Web-ex to bring the tutor and the students on a common platform maximizes efficiency of teaching.

AOU Bahrain is using blended learning methodology in teaching which includes face-to-face class room lectures, e-learning using Learning Management System (LMS) in their undergraduate programs and the virtual classroom lectures in the hosted master program. In this research, virtual classroom technology using Web-Ex is to be understood as web-based groupware environments designed to generally support synchronous e-learning. The tools allow for shared access to teaching material and support voice-based interaction. Virtual classroom sessions have a clear tutor role and are pre-scheduled in OUM master lectures using Web-Ex software. The students in the OUM master class were familiar with each other at the time of the research. The tutor/presenter is another important participant in the virtual learning activity [2][8]. In the case investigated, the tutors including the author of this paper were well versed in using virtual class room platform.

Common Features of WebEx:

Face-to-face classroom instruction has become a common method for delivering instruction in all levels of education. Instructors teaching in this environment have the ability to rely on existing models of classroom instruction as well as commonly accepted guidelines include the following:

- *Invite and remind participants:* Invite participants to an online meeting that has already started via email, voice conference, or instant messenger, and send reminders about your upcoming meeting.
- *Use integrated WebEx audio:* Create a more productive meeting experience with integrated WebEx audio.
- *Record your meeting:* Record your actions during your meeting so you can review the discussion at a later time, or send to colleagues who couldn't attend.

- *Share content*: Get everyone on the same page. Open any document or application and discuss it in real time with other participants.
- *Pass the ball*: Let other participants share and present documents from their computers and assign privileges to individual participants.
- *Transfer files*: Avoid sending emails back and forth by exchanging files – no matter how large – in your meeting quickly, easily, and securely.
- *Interact within a meeting*: Use polling and chat, and learn how to integrate webcams into your meeting for a more personal experience.

Figure (1) shows the screen shot of the Web-Ex live lecture from ‘IT for Managers’ course, one of the core courses in OUM MBA curriculum and Figure (2) shows that the information technology infrastructure in AOU supports the virtual learning.

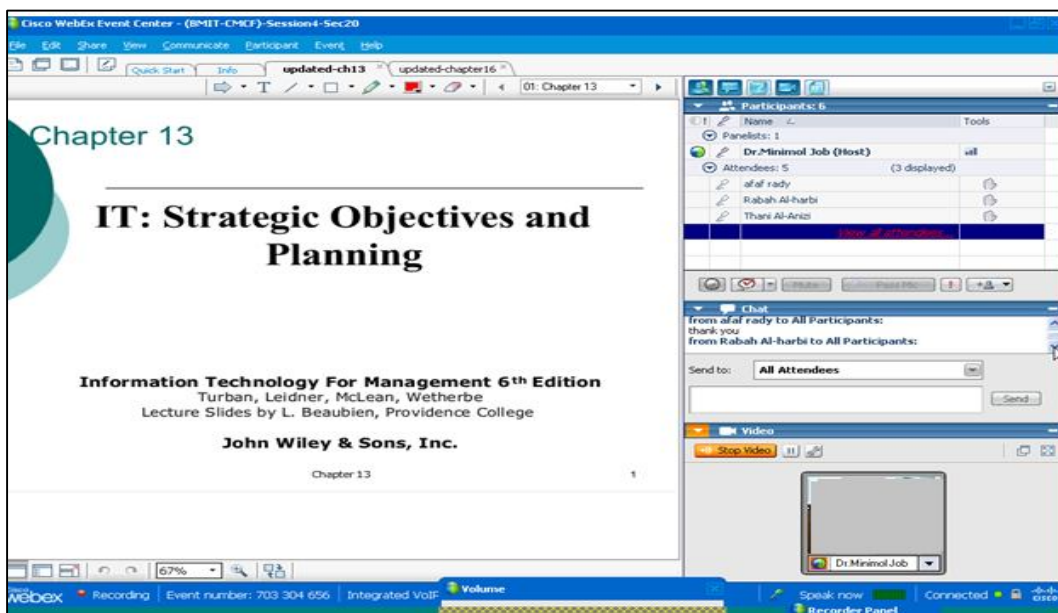


Figure 1: Web-Ex Lecture screen shot for ‘IT for Managers’ Course

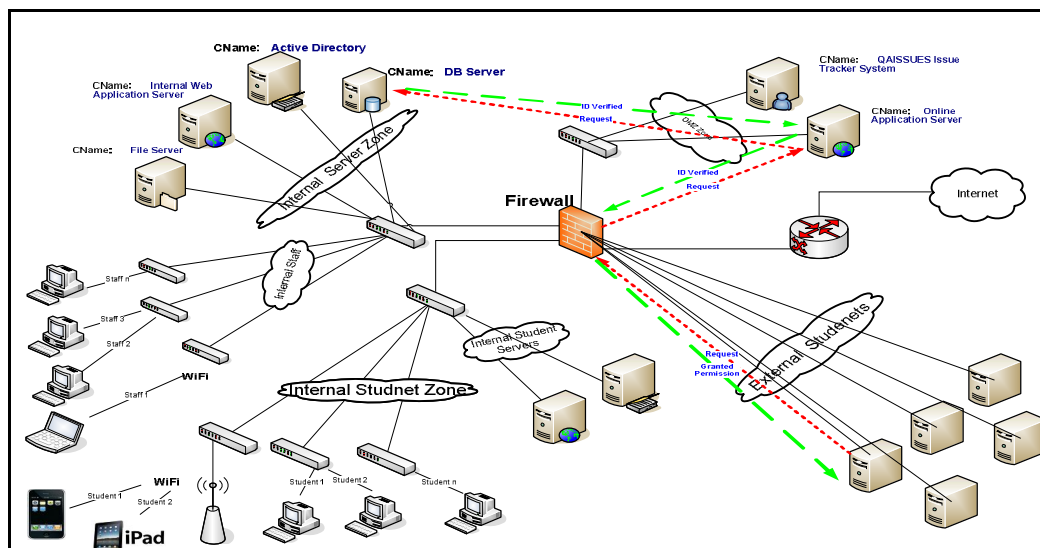


Figure 2: IT Infrastructure in AOU to support virtual learning



II. OBJECTIVES AND METHODOLOGY

The aim of this research is to measure OUM's graduate students' acceptance of virtual learning by investigating a number of factors that influence their learning. This research is categorized as descriptive research. It describes data and characteristics about the population or phenomenon being studied. This research type is the most commonly used and the basic reason for carrying out is to elicit perceptions and attitudes of acceptance the Web-ex as virtual learning tool in AOU Bahrain's OUM hosted master program.[3][6]. The research in this study is survey-based, using a measurement instrument developed for collecting the data. Survey was the best method to be employed in this study as it enables us to gather data about graduate students' attitude, which is the main aim of the study. In this research an online questionnaire was distributed to the OUM graduate students in order to answer the research questions. Publishing the questionnaire online through AOU-OUM's learning management system (LMS) was the best method to reach all students at the same time [5]. The study suggests some significant metrics to investigate graduate students' attitude towards virtual learning, so the following metrics were used in the survey to measure the acceptance of Web-ex as virtual learning tool:

(1)Web-Ex tool awareness and training, (2) Tutor-Student interaction in Web-Ex lectures, (3) performance and benefits of the virtual learning system and (4) the overview of virtual learning system in academic life. Given below are the questions used in measuring student's perspective of the virtual learning based on the Likert Analysis method.

A core objective of this study is to measure the factors influencing the use of the Information Technology Tools (WebEx) in students at institutions of higher education. The research design will focus on relevant factors such as students' technology competency towards the used of WebEx, students' satisfaction in virtual class room. Respondents' population for the research will be kept down to a small number of 70 respondents. For the purpose of obtaining information for research study data is gathered through online survey via the Learning Management System.

Likert Analysis Questions:

The choices are: Strongly Agree, Agree, Partially Agree and Disagree

1. I am aware of the concept of virtual-learning and its role in developing individual skills and knowledge.
2. My university provides me with adequate training facilities and support to use the Web-Ex
3. Beginning to each Web-Ex session, my tutor engage in brief conversation with the participants
4. My tutor has course related materials organized and ready to use prior to the Web-Ex session.
5. My tutor shares the PowerPoint slides and discusses the course topic by marking the key points.
6. I am able to communicate with my tutor during my Web-Ex lecture using the chat facility
7. My tutor verbally responds to student questions posted in the chat room
8. My tutor responds to students' questions in writing also
9. Operating interruptions and disturbances handled properly by the WebEx.
10. Online IT tool 'Web-Ex' can help students to improve their performance.
11. Online IT tool 'Web-Ex' can help students to save time in their study.
12. In my opinion, virtual learning model transform the way of education in terms of increased efficiency and productivity
13. All kinds of lecture needs can be met adequately through Web-Ex tool
14. I have a chance to listen to the recorded Web-Ex lectures.

III. DATA ANALYSIS

A total of 70 questionnaires were collected out of the 100 questionnaires distributed. The OUM master students were asked to provide their attitude regarding Effect of the use of Web-Ex as a virtual classroom tool in open learning in Arab Open University's OUM hosted master program. Data collected was categorized under four different headings in order to highlight the main findings which were based on Web-Ex awareness and training, tutor-student interaction in Web-Ex lectures, performance and benefits of the virtual learning system and the overview of virtual learning system in academic life.

Regarding the awareness of virtual class room lectures in the concept of virtual-learning and its role in developing individual skills and knowledge Figure (3) sixty percent of students strongly agreed, thirty seven percent agreed and almost three percent partially agreed. Seventy four percent of the students strongly agreed that the university provides them with adequate training facilities and support to use the Web-Ex. Twenty percentage agreed and almost five percent partially agreed on this. These results show that the importance of the virtual class room concept is reached among the students positively and the institution is providing adequate training and support to students.

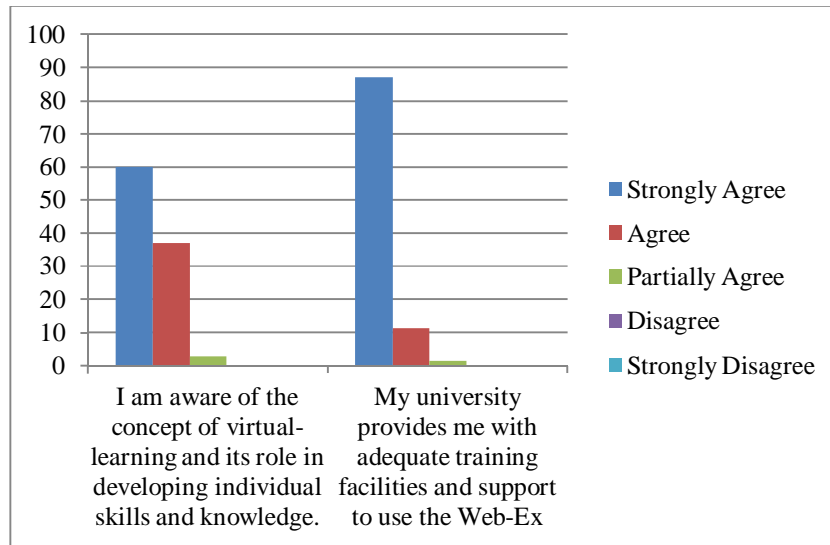
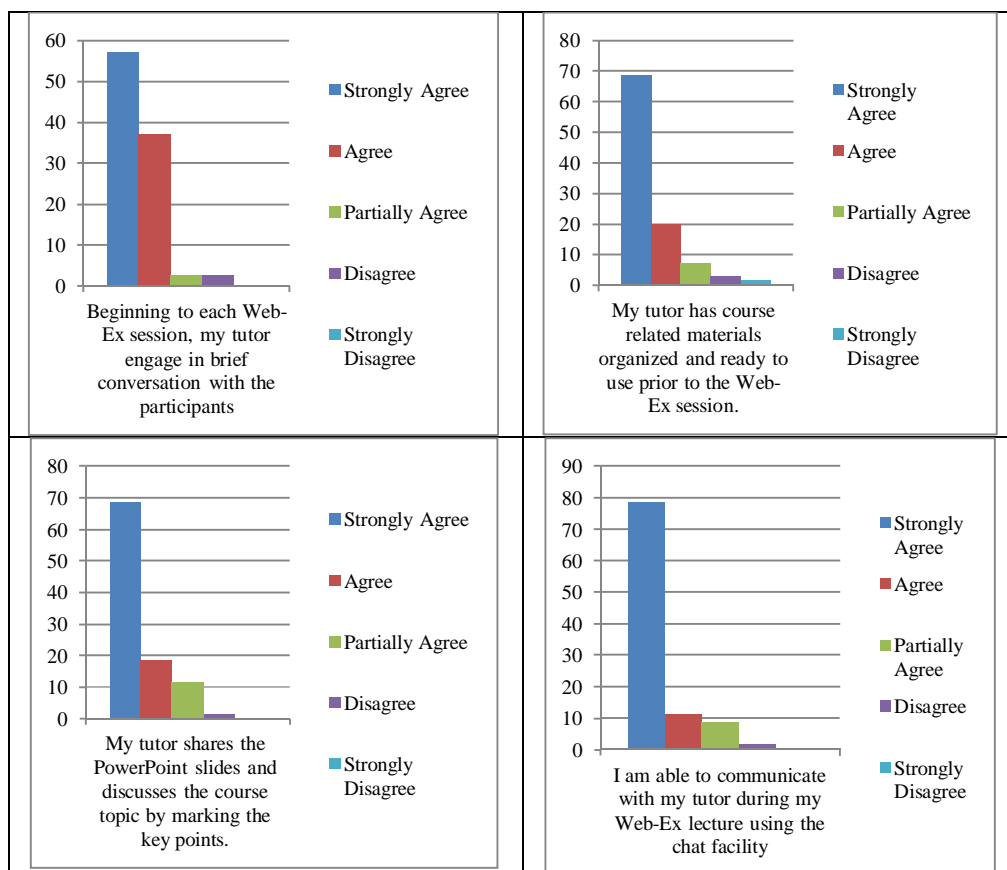


Figure 3: Responses about Web-Ex Awareness and Training



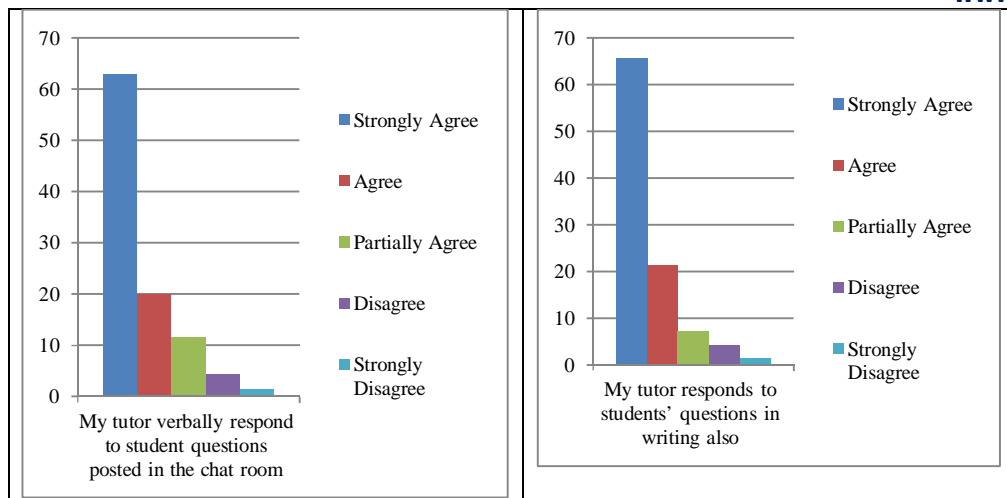


Figure 4: Responses about Tutor-Student interaction in Web-Ex lectures

Figure (4) shows the participants responses about the *Tutor-Student interaction in Web-Ex lectures*. Fifty seven percent of the participants strongly agreed and thirty seven percent agreed and almost three percent partially agreed that beginning to each Web-Ex session, their tutor engage in brief conversation with the participants. Sixty eight percent of the participants strongly agreed and twenty percent agreed that their tutor has course related materials organized and ready to use prior to the Web-Ex session. Almost sixty nine percent of the participants strongly agreed and eighteen percent agreed that their tutor shares the PowerPoint slides and discusses the course topic by marking the key points. Almost seventy nine percent of the participants strongly agreed and eleven percent agreed that they are able to communicate with their tutor during their Web-Ex lecture using the chat facility. Almost sixty three percent of the participants strongly agreed and twenty percent agreed that their tutor verbally respond to student questions posted in the chat room. Almost sixty six percent of the participants strongly agreed and twenty two percent agreed that their tutor responds to students' questions in writing using the chat facility of Web-ex.

The next group of questions was based on the performance and benefits of the virtual learning system adopted in the study program. Figure (5) shows the responses about the performance and benefits of the virtual learning system

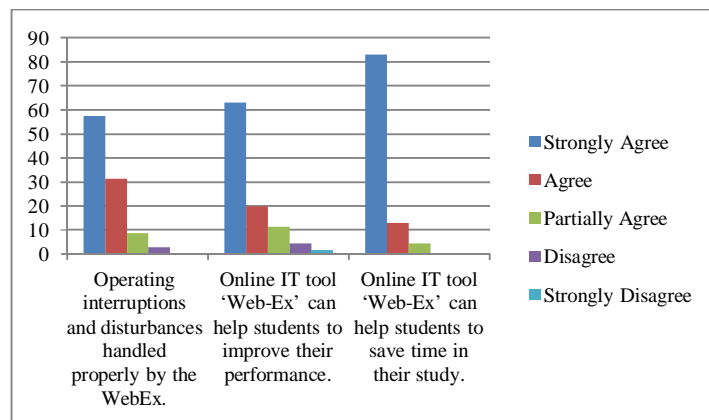


Figure 5: Responses about the performance and benefits of the virtual learning system

Figure (6) depicts that fifty seven percent of the participants strongly agreed and thirty one percent agreed that operating interruptions and disturbances handled properly by the WebEx. Almost sixty three percent of the participants strongly agreed and twenty that online IT tool 'Web-Ex' can help students to improve their performance. Almost eighty three percent of the participants strongly agreed and thirteen agreed that online IT tool 'Web-Ex' can help students to save time in their study.

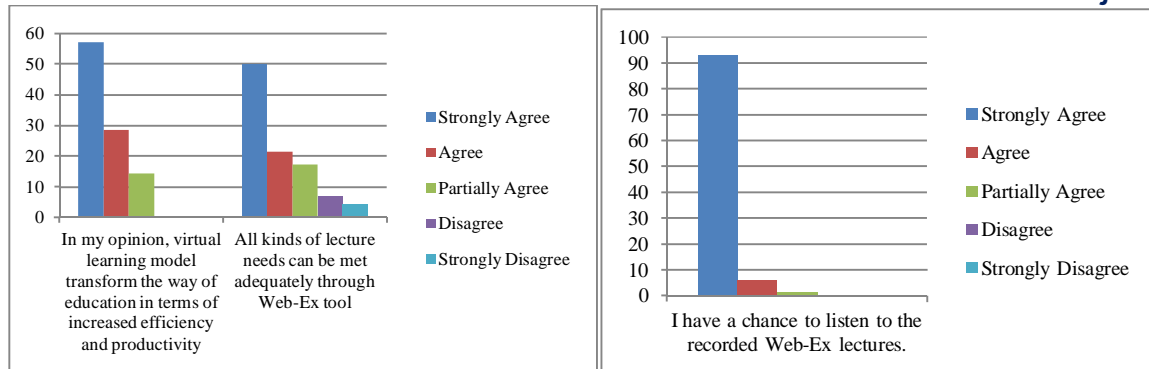


Figure 6: Responses about the overview of virtual learning system in academic life

Figure 4 depicted the responses for the three questions to measure the benefits of the virtual learning system in their life. Fifty seven percent of the participants strongly agreed and almost twenty nine agreed that virtual learning model transform the way of education in terms of increased efficiency and productivity. Almost fifty percent of the participants agreed that all kinds of lecture needs can be met adequately through Web-Ex tool. Almost ninety three percent of the participants strongly agreed that they have a chance to listen to the recorded Web-Ex lectures.

IV. SUMMARY AND CONCLUSION

The research's primary goal was to measure the impact of use of Web-ex as a virtual learning tool among the OUM master students in Arab Open University, Bahrain. Accordingly, the research investigated a number of factors that influence students' awareness and training in virtual learning, student-tutor interaction in virtual class room, benefits gained in their life using virtual learning. An analysis of the data obtained by the researcher through distributing 100 questionnaires to students online and receiving 70 valid and filled questionnaires.

The goal of this study was to fill this research gap by analyzing the attitude towards acceptance of Web-ex as a virtual learning tool in AOU's master programs. The impact of some variables such as Web-Ex Awareness and Training and, performance and benefits of the virtual learning system, have been examined. In addition, the research showed the participants' responses about Tutor-Student interaction in Web-Ex lectures. Arab Open University applied Web-Ex tool in virtual classes. The researcher has also measured the impact of virtual learning in participants' academic life. 100 online questionnaires have been distributed to students and 70 valid and useable filled questionnaires were collected. The results of this research showed, usage of Web-Ex tool affect attitude towards acceptance virtual learning that is offered by AOU. Most of the participants disagreed that all kinds of lecture needs are met by Web-ex virtual lectures.

- Online IT tool 'Web-Ex' can help students to improve their performance.
- Online IT tool 'Web-Ex' can help students to save time in their study.
- Virtual learning model transform the way of education in terms of increased efficiency and productivity
- Students are getting chance to listen to the recorded Web-Ex lectures.

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