The Impact of Blended Learning on Female Student-Teachers in Kuwait

A Thesis submitted for the degree of Doctor of Philosophy

By

Omar Ghaith

School of Sport and Education
Brunel University

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Abstract

This study aims to identify the effect of using the blended learning method on students' academic achievement and satisfaction level in a university course for female student teachers who follow the General Teaching Method Course (304) at the College of Basic Education in Kuwait. The content of the course (304) was based on the five stages of the ADDIE instructional design model, comprising five phases: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation.

The research questions of the study can be summarised in two main questions:

1. **What is the effect of using the method of blended learning in the General Teaching Method Course (304) on students' academic achievement, compared to using face–to–face approaches to learning alone?**

2. **What is the effect of using the method of blended learning in the General Teaching Method Course (304) on students' satisfaction, compared to using face–to-face approaches to learning alone?**

The researcher answered these questions through a mixed method research approach using the Explanatory Sequential Design, in order to determine the nature and objectives of the study. In this, the researcher started with the collection and analysis of quantitative data (using a quasi-experimental approach), which has priority for addressing the two research questions, and then followed this with the collection and analysis of qualitative data (using group interviews) to help explain the quantitative results.

The researcher identified the study sample as 96 female students' teachers at the College of Basic Education in Kuwait. The sample consisted of a first experimental group (n= 39) who followed the General Teaching Method Course (304) by blended learning using virtual learning environment (VLE) of Blackboard, a second experimental group (n=31) who followed the course (304) by blended learning using personal learning environment (PLE) of *Facebook*, and the control group (n= 26) who followed the course (304) using face-to-face approaches to learning alone.

The dependent variables were academic achievement (as assessed in the course's mid-term, final and practical exams) and students' satisfaction (as assessed by the questionnaire, giving a total mark and 3 sub-marks in reference to the students' satisfaction about the teaching method of the course, the content of the course, and the instructor's support during the course).

When answering the first question of the research, the study found that there was a significant difference in both mid-term and final tests between the first experimental group (studying through the blended learning method using VLE of Blackboard) and the control group (studying through face-to-face learning alone). However, there was no significant difference in both mid-term and final tests between the second experimental group (studying through the blended learning method using PLE of Facebook) and the control group. And there was also no significant difference in the practical test between the two experimental groups (each separately) and the control group.

When answering the second question of the research, the study found that there was a significant difference in the teaching method dimension of the satisfaction questionnaire between the two experimental groups (each separately) and the control group. And there was also a significant difference in the instructor's support dimension of the satisfaction questionnaire between the first experimental group and the control group, but no significant difference was found between the second experimental group and the control group. There was also no significant difference in the course content dimension of the satisfaction questionnaire between the two experimental groups (each separately) and the control group.

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- **Distance Learning:** Al-Taheeh (2004) defines distance learning as learning through cancelling distances of time and place that separate learners and teachers, using certain methods that approach these distances and cancel their consequent effects.
- **Face-to-Face Learning:** It means the traditional learning method which is the familiar methods used in universities, namely, the attendance by students and meeting with their teachers inside classrooms in a specific time and place.
- **Virtual Learning Environment (VLE):** Kuit and Fell (2010) defined it as a collection of integrated learning support tools which typically comes as a single, commercially available product such as Blackboard or else available as an open source, e.g. Moodle. In the current study, the VLE used was 'Blackboard', which is a system that allows distance learning via the internet. This system enables the teacher to construct a comprehensive learning environment, design electronic academic courses, and find means of direct and indirect contact between students, teacher and their courses using development tools available in that environment.
- **Personal Learning Environment (PLE):** Van Harmelen (2008) defined personal learning environment as a system that helps learners take control of and manage their own learning. In the current study, the PLE used was Facebook, which is a widely used free-access social networking website that is operated and privately owned by the Facebook company. It allows users to create their own profiles, make friends, find old friends, and exchange information, messages, personal photos, videos, and comments on specific subjects.

- **Blended Learning Method:** This is a learning method that depends on blending distance learning and face-to-face learning. Students would attend in classrooms, meet their teachers and at the same time are followed remotely and taught electronically via the internet. In the current study, distance learning is carried out via the internet using the VLE of Blackboard and PLE of Facebook.
- **General Teaching Method Course (304):** This is one of the academic theoretical courses that are taught in the Public Authority for Applied Education and Training at the College of Basic Education, Curriculum and Instruction Department, Kuwait. The targets of this course include preparing student teachers for the teaching profession through training them in basic teaching strategies, methodologies, and skills. This is a general compulsory course (module) for all students who register at the College of Basic Education.
- **Academic Achievement:** By this term, the researcher means the numerical quantitative information acquired by students directly from the academic content, whether through the face-to-face learning method or the blended learning method. In the current study, academic achievement was measured via the mid-term, final and practical tests of module (304) of the academic term 2009-2010, which assesses students' assimilation of knowledge, concepts, and skills related to the content of the General Teaching Method Course (304).
- **Students' Satisfaction:** It means the level of students' satisfaction in relation to the teaching method, the content of the course, and the instructor's support of the course. This was assessed through a questionnaire.

Chapter 1: Preface to the Study

1.1 Introduction

The contemporary world is undergoing changes in various aspects of life, and the last decade of the twentieth century and the beginning of the twenty-first century have witnessed tremendous advances, especially in the field of information and communication technology, changes that continue to grow day after day, and accelerating at a very fast pace. And the educational field is one of the most prominent areas affected by these new technologies, which has led to the emergence of multiple forms of learning such as *Distance Learning*, Distance learning is a way of delivering education, mostly at the college level, where students do not have to physically attend class.

Interest in distance learning has grown rapidly since the advent of the Internet. This method of learning has witnessed significant advancement with the growth of the web itself. When the Internet was first introduced, the means used in distance learning was limited to text alone. However, with rapid technological development, multi-media applications have started to play a significant role in supporting the educational process (Georgouli, 2011; Al-Khalifa, 2008).

As the world today is witnessing rapid changes as a result of scientific and technological advancements, it has thus become necessary for the educational process to cope with these changes, and to face up to potential problems such as the increasing numbers of students, shortage of teachers, and the enormous distances involved with learning.

Therefore, many educational institutions across the world have applied distance learning and online programmes using the Internet which have brought about many changes in that regard (Littlejohn and Pegler, 2007). Alongside this is the rapid development of what is called Virtual Learning Environments (VLE), which Kuit and Fell (2010) consider as a collection of combined learning support tools which typically come as a single, commercially available product such as

Blackboard or else available as an open source, e.g. Moodle. VLEs are like classes similar to the traditional classes since both teacher and student would still need to attend. However, these attend on-line with no restrictions in terms of time or place. Through these virtual classes, courses are updated so that students can gather through networks to participate in educational settings where the student becomes the centre of attention who tries to learn, understand and acquire information within such an environment.

Thus, new concepts of learning, based on the internet, have crystallised; for example, Web 2.0 which has become a key technology that supports publishing content over the Internet. Web 2.0 refers to an expected second generation of web technology that allows people to create, publish, exchange, share, and cooperate on information (knowledge) in a new way of communication and collaboration. Web 2.0 technology makes the web no longer an area just for browsing but also for creating and sharing.

These recent changes in the web have affected educators and students in terms of the methods they use for teaching and learning. We have begun to see the adoption of new approaches towards the use of technologies for teaching and learning in online environments; for example, personal learning environments (PLE) which Van Harmelen (2008) has defined as systems that help learners take control of and manage their own learning. PLE gives learners the ability to build on their personalised educational landmark in order to improve their skills and knowledge.

Nevertheless, the lack of student-teacher direct contact (in contrast to face-to-face learning) remains one of the disadvantages of distance learning via the Internet. That is because such a lack of direct contact will affect the level and progress of a lot of students who are not used to self-learning via the Internet without direct contact, physically attendance and interaction with the teacher. Al-Taheeh (2004) recognises this as one of the most negative aspects of distance learning, especially for Kuwaiti students who are not used to the methods of distance learning, the majority of them do not have the skills to help them do so. This becomes more acute when the distance learning course needs direct practice and practical application between

teacher and students. Another disadvantage of distance learning via the Internet is the possibility for cheating during exams, for it is very difficult to ensure that the person who is taking the exam is indeed the actual student and not someone else (Al-Aurini, 2005; Al-Mousa, 2005).

One of the best ways to deal with the previously stated drawbacks of distance learning is to convert them into positives using *blended learning*. Colis and Moonen (2001) define blended learning as the blending of on-line learning and face-to-face learning, whereby education is carried out both on-line and off-line in the more traditional classes.

This blended learning would help solve many of the disadvantages of distance learning via the internet, such as the lack of direct student-teacher contact and students cheating in exams, in addition to the problems of face-to-face learning such as the lack of student-teacher contact outside the classroom. By virtue of this kind of learning, there is communication and direct interaction between students and teachers during classes. At the same time, teachers can communicate with their students indirectly via the web, or through VLE, which enables teachers to provide a complete on-line educational syllabus for the course. Students have access to lessons and learning objectives, do their homework, send assignments, participate in discussion forums or though the PLE, all of which help them take control of and manage their own learning. In this way, students are provided with the needed support to set their own learning goals, manage their learning in terms of its content and process, and all the while communicating with others in the process of learning.

Among the theories of learning related to blended learning is the constructivist theory. Constructivism is “a student-centred philosophy that emphasises hands on learning and students actively participating in lessons” (Ganly, 2007). This theory supports to a large extent the modern teaching methods which depend on the use of technology in teaching and learning such as blended learning and through focusing (in this theory) on the effective positive role of the student during the learning process. In blended learning, the student will have to actively participate and engage through the practicing of many diverse educational activities in blended learning courses. Moreover, the constructivist theory considers the role of the teacher as a

facilitator and manager. In blended learning, the role of the teacher is the same to a large extent. Here, the teacher in blended learning courses takes on the role of guide and advisor, and provides an opportunity for students to interact positively in the educational activities of the course, thereby encouraging discussion among learners. As such, the learner becomes the centre of the educational process, far more positive and effective than being negative.

From such a perspective, this study is an attempt to trace the effect of using the method of blended learning (blending distance learning, using the virtual learning environment [VLE] of Blackboard, personal learning environment [PLE] of Facebook and face-to-face learning) on the academic achievement of female students' teachers at the College of Basic Education in Kuwait. This will be done in terms of the General Teaching Method Course (304) compared to face-to-face learning alone. The study also aims to identify the effect of using the blended learning method on students' course satisfaction compared to face-to-face learning alone. Putting together the course content was based on the appropriate instructional design for the course's targets using the five stages in the ADDIE instructional design model. The ADDIE model is a systematic instructional design model consisting of five phases: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. This design included activities, interactive learning materials, feedback, self-assessment questions, as well as some suitable multi-media.

1.2 Problem of the Study

Many countries today are seeking to develop their education systems through the use of these technologies and methods of modern learning (such as blended learning in the field of education) in order to keep pace with technological developments and to achieve satisfactory results, as education is considered a real investment for any country and its people. And this invites making good use of the technology in preparing student teachers, curriculum development and the diversity of teaching methods, in an attempt to develop the educational process and to provide better learning and education.

Education in Kuwait is not in isolation from these global developments, for the Kuwaiti government as represented by its Ministry of Education is determined to take advantage of e-learning and blended learning and to employ them in the learning and teaching process.

On the other hand, education in Kuwait suffers from major problems. In a new extended study conducted by the Alqabas newspaper (2012) on education in Kuwait, its findings point to a decline in the level of education compared to what it was in the 1960's and 1970's, and that education in Kuwait suffers from major problems, most of them in the area of curriculum and teacher preparation. This was confirmed by a recent report published by the Alqabas newspaper (2012) for the ex-Prime Minister of the United Kingdom, Tony Blair, who serves and works as a consultant for the Kuwaiti government. Mr. Blair confirmed in his recent report that the current education system in Kuwait is unable to prepare a workforce to cope with the challenges of the future, unless the Kuwaiti government, as represented by the Ministry of Education and the institutions of higher education, makes drastic changes to its educational system.

The proposals and solutions in the study by Alqabas (2012) and the report of Tony Blair focused on the importance of Kuwaiti teachers' preparation and on the use of e-learning and blended learning, benefiting from its advantages to the process of learning and teaching, and to the teacher preparation programmes at the College of Education.

Therefore, higher educational institutions and the Ministry of Education in Kuwait are working at the moment to prepare a major project for the application of blended learning in the educational process (to be dealt with later in the chapter on Education in Kuwait), to cope with both global and modern developments so as to achieve satisfactory results, and thus become one of the key solutions to the problems afflicting the education system in Kuwait.

Students aspiring to be teachers in public education (under the supervision of the State of Kuwait) do their educational preparation in either of two educational institutions, the College of Basic Education under the Public Authority for Applied Education and Training and the College of Education at Kuwait University. These institutions offer programmes with suitable content for aspiring teachers but when I look at the reality in the approach and the method of teaching used to deliver this content to students' teachers, I found that most of the academic staff still use

traditional teaching methods without taking advantage of the new teaching methods such as blended learning using VLE or PLE. Also, in Kuwaiti schools, the study by Alqabas (2012) found that teachers in Kuwait do not use the latest methods of teaching.

From the curriculums at the College of Basic Education in Kuwait and from knowledge and information provided by aspiring teachers, I found that the curriculums include information about e-learning and online learning through certain modules that are only studied theoretically. However, I think the most important thing is to be able to use this information and these new methods *in practice*, in addition to studying them as theoretical concepts.

In this study, the blended learning method using VLE and PLE was applied at the College of Basic Education in Kuwait through a General Teaching Method Course (304), aiming at preparing adult female student teachers to qualify for the profession of teaching through acquiring basic teaching strategies, methodologies and skills. This blended learning method is aims to enhance the effectiveness and performance of student teachers, providing a new generation of teachers with modern teaching methodologies.

The potential for this blended learning method is to increase the effectiveness of student teachers and their performance, as there is evidence on the feasibility of the use of blended learning method in terms of its effect on both academic achievement and student satisfaction (Alvarez, 2005; deGula, 2004; Khan, 2005). However, such evidence is from research conducted in different environments and countries, which is likely to be different to the impact of blended learning on the Kuwaiti situation. **Therefore, the problem of the current study can be crystallised into two main questions:**

1. **What is the effect of using the method of blended learning of the course (304) on academic achievement of the female student-teachers, as compared to face – to–face learning alone?**
2. **What is the effect of using the method of blended learning of the course (304) on female student-teachers' satisfaction, as compared to face –to-face learning alone?**

1.3 The Study Hypotheses:

1. The use of the Blended Learning method in the General Teaching Method Course (304) leads to better academic achievement for female student-teachers as compared with the face to face learning alone.

2. Using the method of blended learning in the General Teaching Methods Course (304) leads to better satisfaction for female student-teachers compared with the method of face to face learning alone.

1.4 Aims of the Study

The current study aims at the following:

- Identify the effect of blended learning on academic achievement in a university course for female student-teachers of Education College
- Identify whether the blended learning method is suitable for the female student-teachers of Education College, and whether the difficulties facing students affect their level of satisfaction about the course and its teaching methodologies.

1.5 Importance of the Study

- To my knowledge, Kuwaiti researchers have so far failed to tackle the subject of blended learning using VLE and PLE. Thus, the current study constitutes a new addition to Arab and Kuwaiti studies relating to the effect of blended learning on academic achievement of female university students of Education College. This may be one of the pioneer studies to tackle such a subject in Kuwait.
- Aligning the project with the desire of Kuwait's Ministry of Education and the Public Authority for Applied Education and Training for the use and application of blended learning in the country's education system.
- Contribute to the use and application of blended learning on student teachers whose preparation is now a key focus of the State of Kuwait. And as pointed out by some recent

studies regarding weaknesses in the programmes to prepare them, one of which is a lack of use of modern methods in their teaching in the College of Basic Education under the Public Authority for Applied Education and Training or in the College of Education at Kuwait University.

- Kuwait University seeks to discover the effects and results of adopting blended learning on some different electronically-developed courses.
- The current study constitutes a primary step towards activating the blended learning method in education, which will pave the way for other studies, tackling different aspects in their fields.

This chapter has introduced the main focus of the study (blended learning) and its importance. It also pointed out the effectiveness of blended learning when used as a delivery method. However, in other countries and environments, the level of efficiency differs from the Kuwaiti educational environment, which thereby highlights the aim of the study, namely, identifying the effect of using blended learning on academic achievement and satisfaction in a university course for female student-teachers at Education College, Kuwait. The study hypothesis assumes that “using the method of blended learning in the General Teaching Methods Course (304) leads to better achievement and satisfaction for female student-teachers when compared with the method of face-to-face learning alone”.

Chapter Two: Education in Kuwait

This chapter deals with several topics related to the issue of education in the State of Kuwait, topics that include the emergence of education and its development, the educational goals of the educational system, a description of the educational system of the State of Kuwait, before moving to higher education in Kuwait. Then, I will look at the education crisis in Kuwait and the problems being faced by the current education system. At the end of the chapter, I will discuss the issue of e-learning in Kuwait, as well as the vision and projects of the Ministry of Education in Kuwait regarding e-learning.

2.1 The emergence of education and its development in Kuwait

Throughout Kuwait's history, religious education in Kuwait was largely done in the mosque. Ancient education was done within the corners and pillars of mosques, where seminars were held and various issues of science and knowledge were discussed. This kind of education remained prevalent until the stage of Kettateeb which took place in 1887. Kettateeb are special places for the education of boys and girls and learning the basics of the Arabic language, especially reading and writing, mathematics, and the Quran. These Kettatib were managed by what is known as "Almullah" or "Almutawa" which currently serves as a teacher.

Then, formal education started in Kuwait in 1911 with the opening of Al-Mubarakiya School, the first private regular school in Kuwait. Traders oversaw the management of the school, exchanging their contributions with donations from good people. Due to the increasing number of students, the evolution of life economically and socially and, on the basis of the importance of the development of formal education, the Al-Ahmadiyya School was opened in 1921. This school signaled a new shift in the field of education in the state.

Education in Kuwait was limited to this type of school until 1936, when the state of Kuwait became responsible for education and began its national mission in the field of education with the establishment of the Knowledge Council under the chairmanship of Sheikh Abdullah Al-Jaber. This Knowledge Council took over the process of educational planning, and the state began funding educational projects in various parts of the country in an effort to make education

free for all Kuwaiti citizens. This council formed the nucleus of the Ministry of Education which was established in 1962, immediately after independence (Khalaf, 2011).

The education sector has seen a remarkable development from the 1940s until 1954, when the state decided to review the overall educational experience, and then set up plans and new programmes for the advancement of the educational process and the need to respond to the requirements of social and cultural development which was witnessed in Kuwait in the 1960s.

In 1961, after abolition of the British protection agreement by Sheikh Abdullah Al-Salem Al-Sabah, the Kuwaiti government was formed, including the Ministry of Knowledge, which changed its name to the Ministry of Instruction and Education in 1962, and then to the Ministry of Education in 1965. A Board of Education was formed, and the overall objectives of the Ministry of Education were set in 1967. In 1982, the Public Authority for Applied Education and Training was established. And the Compulsory Education Law for all Kuwaitis was applied in 1995.

In 1966, the Kuwait University and the Teachers' Training Institute were established, and in the same year the management of high school education was set up, one of whose duties was the supervision and guidance of high school education and the Teachers' Training Institute. A process was also initiated for establishing health, trade, and technology institutes to meet the growing need of the country especially in terms of scientific disciplines (Ministry of Education Website).

Based on the above, the history of education in Kuwait can be divided into five key stages (Khalaf, 2011)**:**

1. **Stage of religious education** that existed before the emergence of Ketateeb in 1887. Education at this stage was mainly in mosques, places of worship, and was mostly of a religious nature.

2. **Stage of Ketateeb,** which began in 1887 and lasted until the establishment of the Al-Mubarakiya School in 1911. Education in this period was very simple and limited to what the

child receives from his/her parents and Kettateeb, where the Mullah or Mutawa made a significant impact in the education of children and teaching them the Koran and the basics of reading, writing, and mathematics.

3. **Private education,** which began in 1911, lasted until the establishment of the Knowledge Council in 1936. This stage began with the establishment of the Al-Mubarakiyah School in response to traders who need clerks and accountants to manage their trade which was constantly expanding. Therefore, this school was aimed at preparing commercial clerks to do trading, upon which Kuwait's economy depended at the time. This school was supported through donations that were collected from Kuwaiti merchants. The Al-Ahmadiyya School was opened in 1922 to support the Al-Mubarakiyah School in preparing graduates needed by society.

4. **The stage of public education** began in 1936 and continued until 1956. The state then dominated education, developing it, and directing its course and funding to respond to the requirements of the new phase resulting from developments and events that represented the emergence of the state and the country's independence, not to mention the development of various aspects of its life. This period was characterised by the establishment of the Knowledge Council in 1939, while the first school for girls was established in 1937, and thus Kuwaiti girls entered education for the first time. This period also witnessed the flow and export of oil, and this led to the development of education in Kuwait rather quickly. Therefore, this period is dubbed "the establishment of schools", where schools became widespread. In this period, there were two educational consultants who came from outside Kuwait (Qabbani and Akrawi). These two studied the state of the country and offered a number of proposals for developing education in Kuwait.

5. **The stage of modern education** began in 1956 and still continues today. This stage is characterized by large directives for the development of education, updating the curriculum, making and setting goals in terms of the requirements of comprehensive development in the community. This is when the country began working to prepare educational plans in order to develop its education system.

2.2 Goals of the educational system in the State of Kuwait

Kuwait's educational goals reflect the philosophy of its educational system, and embody the kind of education the community wants. The country's constitution, the Islamic faith, the nature of society and its needs - all of these make up the primary sources of educational goals in the State of Kuwait. The educational goals are meant to respond to the needs of humanity and civilization as well as the aspirations of the community.

The basic premises of the pillars of educational philosophy are derived from Kuwait's educational goals which can be summarised as follows (website of the Ministry of Education):

- The nature of Kuwaiti society and its religion, philosophy and cultural heritage.
- The Islamic faith and its comprehensive approach to the human situation, the universe and life as a whole.
- The Arabic heritage, contemporary issues, hopes and trends into the future.
- The nature of the times in which we live**.**
- The needs of the individual and the characteristics of growth**.**
- Contemporary trends in education**.**

We can, in this context, review some of the educational objectives according to its derived sources (Ministry of Education Website):

Some educational goals are derived from the nature of Kuwaiti society, its religion and philosophy:

- Belief in the principles of the Islamic religion, such that these principles become a way of thinking and a way of life for the individual's behaviour and his social relationships.
- Definition of Arab-Islamic heritage, social customs and traditions and the work to support it.
- Strengthen the bonds of solidarity, brotherhood and the spirit of family among people and to get rid of any intolerance due to sectarian, regional, tribal or caste.

Some educational goals relating to the growth of learners:

- Helping individuals to achieve proper mental growth.
- Helping individuals to achieve proper physical growth.

- Creating opportunities for individuals by ensuring a proper emotional maturity.

Educational goals derived from contemporary trends in education

- The development of the ability to practise self-learning.
- Helping individuals to lifelong learning.
- To benefit from modern technologies in the field of education.

2.3 Description of the educational system in the State of Kuwait

The educational system in Kuwait includes a variety of paths to cover the multiple needs of students of various ages. The educational ladder begins with the nursery (two levels for two years) which is an optional stage. And then, compulsory education begins for Kuwaitis at the primary school stage (from the first to the fifth grade for five years), and then the secondary stage (from sixth grade to ninth grade for four years). Then comes the high school level (from tenth grade to twelfth grade for three years) and this stage is no longer compulsory. The educational ladder has been modified in 2004-2005 from four years for each stage (4.4.4) to five years in the primary school, four years in secondary school, and three years in high school (5.4.3). Compulsory education for Kuwaitis runs from primary school (six years old) to the end of secondary school (fourteen years old).

The educational ladder applies to the government's general education schools as well as private education schools. 'Arab' is used to teach the curriculum of the Ministry of Education in government schools, and with respect to private schools ('foreign'), they teach their educational curricula following the curriculum provided in their countries of origin. The other educational programmes are available in the institutes of religious education, special education schools, adult education centres and literacy centres.

With regard to education beyond high school, the student can continue in education programs through studying at the Public Authority for Applied Education and Training for two years to get a diploma or for four years to get a Bachelor's degree. The student could also after high school enrol at Kuwait University, the Institute of Music, the Institute of Performing Arts, one of the

country's private universities, or join institutes and colleges specialized in military and police, or can even complete his studies outside the State of Kuwait.

The following table shows the official age for enrolling at the appropriate educational stage:

Table (1): the official age for enrolling at the appropriate educational stage

Official school age	Educational stage
4 – 5	**Nursery**
6-7-8-9-10	**Primary school**
11-12-13-14	**Secondary school**
15-16-17	**High School**
18-19-20-21	**College or University**

Education in Kuwait is free for all Kuwaitis from nursery to high school, as well as for a certain class of non-Kuwaitis such as children of Kuwaiti mothers or students from Arab Gulf countries. Private schools take in both Kuwaitis and non-Kuwaitis for a fee determined by the school.

2.4 Higher Education

Both Kuwait University and the Public Authority for Applied Education and Training are the main government educational institutions under the Ministry of Education and Ministry of Higher Education in the State of Kuwait. And there are four private universities: American University, Arab Open University, Gulf University for Science and Technology, and the American University of the Middle East.

For colleges of education that prepare and graduate student teachers in the State of Kuwait, there are two major colleges. The first is the College of Basic Education (where the current study was carried out) which comes under the Public Authority for Applied Education and Training, and the other is the College of Education at the University of Kuwait.

2.4.1 Kuwait University

Kuwait University is the first public university in the State of Kuwait which was established in 1966. It consists of 16 colleges and various general services and work centres. Kuwait University seeks to provide world-class education, and is committed to advancing, preserving, and disseminating knowledge, in addition to preparing educated, enlightened and qualified human resources in order to contribute to society's developmental needs.

College of Education at the University of Kuwait

The College of Education was established by the Emiri Decree in May 1980, and opened for classes in September 1981. It received its first cohort of students for the first semester of the academic year 1981/1982.

College Objectives

Firstly: To provide the high-efficiency manpower needed to work in the educational field which includes:

1. Prepare female student teachers for nurseries and kindergartens.
2. Prepare student teachers for primary schools.
3. Prepare student teachers for secondary and high schools in all disciplines.
4. Preparation of administrators in all stages of schooling.
5. Preparation of technical supervisors to work at all stages and disciplines.
6. Preparation of specialists in the following areas:
    - Educational research.
    - Build and develop curricula.
    - Educational techniques.
    - Educational measurement and evaluation.
    - Educational and psychological counselling.
    - Adult education.
    - Educational planning.
    - Special education.

Secondly: To develop awareness of educational scientific research through investment in results especially in terms of problems faced in the field. This includes:

1. Providing scientific activities that help develop awareness in educational research and its importance in continuing research.
2. Provide the necessary resources that could benefit educational research.
3. Interest in encouraging individuals and social research in terms of the College's academic staff within its academic departments.
4. Interest in graduate studies and academic staff supervision of Masters and PhD studies.
5. Exchange experiences in the field of educational research with educational institutions locally, regionally and globally.

Thirdly: To meet the needs of the community of educational services and other areas of social activity of an educational nature. This includes:

1. Cooperation with the Ministry of Education and other social institutions.
2. Contribute to the activities of public education.
3. Contribute to lifelong learning activities.
4. Participate in implementing community development plans in the field of education.

2.4.2 Public Authority for Applied Education

The Public Authority for Applied Education and Training seeks to achieve the goal for which it was established, which is providing the technical workforce responsive to the requirements of national, social and economic development. It was established in December 1982. And the main aim of this authority is to develop and raise the efficiency of its outputs, making sure they would be eligible to work in different labour market sectors and contribute effectively to the development of the national economy. It also aims at modifying the demographics of the country by providing training programs and curricula that keep pace with global requirements in this era of globalization, which would raise the level of skills and knowledge needed to make sure trainees take their suitable place in the labour market. The Public Authority for Applied Education and Training comprises 4 colleges and 8 institutes.

College of Basic Education - Public Authority for Applied Education and Training

Since 1950, various efforts have been made to prepare teachers for primary school stages and nurseries, culminating in 1963 when it opened an institute of teachers. A system of acceptance was then set up which made the acquiring of a secondary school certificate an entry requirement to such an institute, and the duration of the study was 4 years, after which graduates were awarded a Diploma from the Institute of Teachers which qualified them to teach in primary schools.

At that time, the institute of teachers was included in a number of disciplines such as the art of education, physical education, in addition to the general division or branch. But in 1972, the Institute of Education was opened for teachers, and a system of acceptance was required to obtain the certificate of secondary school, and the duration of the study was two years, after which graduates are awarded a Diploma of the Institute of Education which qualifies them to teach in primary schools.

Studying at the Institute of Education was extended since 1986 to become a 4-year programme instead of two, and the institute included many different disciplines, thereby gaining its new name of College of Basic Education (the current name of the college). And its graduates are awarded a Bachelor degree in Education. The College currently comprises 17 scientific departments.

The College of Basic Education aims at the same objectives mentioned in the context of the College of Education at Kuwait University, but the focus here is more on preparing student teachers to be able to teach in primary schools.

2.5 Education crisis in Kuwait

Tony Blair's vision about education in Kuwait: In short ... You are in danger!

Kuwait became famous in the past for being the School of the Arab world, where the education system was the most developed and advanced in the region, and attracted students from various

Arab countries to pursue their higher education in Kuwait. Unfortunately, it is no longer the case for the current education system which is struggling to be able to prepare a workforce of Kuwaitis to keep up with the challenges of the future. If the system of education continues to work according to its current form, Then Kuwait would have no opportunity to develop a modern economy where citizens are ready for jobs with high double value. This is the contention of the former British Prime Minister, Tony Blair (who is working as a consultant for the Kuwaiti government), in terms of his vision for Kuwait in 2030. He is convinced that the current education system in Kuwait is unable to prepare the workforce to cope with the challenges of the future. The report of Tony Blair recommended for both public and higher education the need to take strong and effective procedures; otherwise, continued inaction will inevitably put Kuwait's future at risk (Al-Qabas newspaper, 2012).

Also, according to the report by Tony Blair (2012), this is despite the fact that spending on education in Kuwait is almost the highest in the world. For example, the spending size ranges from 6.2% to 8.3% of the Gross Domestic Product (GDP) compared with 3.1% in Singapore and 1.3% in the United Arab Emirates. And yet, the education system in Kuwait suffers from major problems. The report also pointed to the indifference of the Kuwaiti government in relation to the teaching profession at least at the level of cost-effective material and morale, as he exposed the existence of a problem in the Kuwaiti teacher’s preparation.

Tony Blair emphasizes the importance of paying attention to higher education in Kuwait and says that any future vision of Kuwait requires a university sector at the highest level of quality and efficiency which produces outputs and graduates who are creative with real talent. However, the current situation is one of the lowest levels of participation in higher education, which is accompanied by a question mark over the quality and efficiency of higher education in Kuwait.

Al-Qabas newspaper (2012) conducted an extensive scientific study through a professor of Curriculum and Instruction, Fawzi Ayoub, on education in Kuwait. The study addressed the imbalance in the two main pillars of education, the curriculum and the teacher in Kuwait. The preparation and the application of the study took a full year with the participation of a number of specialists in the field. The study found that formal education in Kuwait is suffering from a

major crisis, and that there is a decline in the level of education compared to levels in the 1960s and 1970s.

The study by Al-Qabas newspaper (2012) and Tony Blair (2012) indicated that Kuwait has achieved modest results in international tests to measure the academic achievement of students in mathematics, science, and English.

Indeed, a rich country and sparsely populated such as Kuwait can be one of the best in the field of education, providing the best model in the Arab region due to its long experience in education at the Arab level. Kuwait is spending billions of dollars on education without leading to the corresponding quality results. And according to a United Nations report in 2008, Kuwait comes at the forefront of countries with the most spending on education, compared to a significant reduction in the level of educational outcomes.

Education in Kuwait started before the discovery of oil and the establishment of the independent state with ambition, hope and determination as shown by Kuwaitis of eras gone by. Then, the stage of the high achievements came after the discovery of oil and after independence, education became free and available to all Kuwaitis; therefore, educational justice and equal opportunities for all were achieved to a large extent, with focus on the quality of education. And this situation continued until the Iraqi invasion of Kuwait in 1990 and the subsequent problems that led to a clear decline in the level of education provided by schools and formal educational institutions in Kuwait.

After the liberation of Kuwait from Iraqi occupation, there were many attempts to reform education in Kuwait and to restore its previous glory in the field. In this context, the Kuwaiti government adopted in 2003 the Strategy of Education Development 2005 to 2025, but the many initiatives which aimed at promoting education in Kuwait did not succeed in addressing the education crisis in its depth and core. In addition, these initiatives were only partial or limited at times.

2.5.1 Main problems and negative aspects of education in Kuwait

There are a number of problems and negative aspects that adversely affect the educational process in Kuwait, but I am going to focus here solely on the main problems:

2.5.1.1 Political crisis and the absence of vision

The semi-permanent political tension in the relationship between the Ministry of Education (government) and parliament due to exaggeration by some members of house in their demands and criticisms is exerting undue pressure on officials of the Ministry of Education. And this has impeded the work of the Minister of Education and educational officials most of the time. The direct interventions of politics and politicians in the educational affairs of the nation have had negative effects on Kuwait's education.

The study by the Al-Qabas newspaper (2012) indicated that elite educators who work as academics in the College of Education at Kuwait University and in the College of Basic Education under the Public Authority for Applied Education and Training in Kuwait ought to consider the education crisis in the country as a crisis of educational politics, and that there is a huge imbalance in educational politics which has been pursued by successive Kuwaiti governments. Many university professors and researchers in the field of education in Kuwait talk about a real problem with the country's educational policy, and that the government of Kuwait is the main reason for it, as it is ultimately responsible for the problems suffered by the education sector. This is either because the Kuwaiti government has no educational policy, or because the follow-up of the educational plans (where they exist) often stumbles for various reasons, and attempts at implementing it are not continued from the era to another or from one government to another. Besides, the government has not determined its educational priorities clearly, either because such attempt at reform was often partial and limited, or it tries to change formality without the real substance of education.

It is clear that there is a lack of vision and educational planning by the Kuwaiti government, as represented by the Ministry of Education in its effort to develop education in Kuwait. Any development without a clear and steady vision will be tainted with confusion and ending up with wasted efforts. Most educational development operations in Kuwait are in accordance with directions of the Minister of Education and his collaborators in the ministry, which either take

the form of ideas and projects that depart with the minister when he eventually leaves office or the process of implementing these projects changes. Dr. Ghazi Al-Rashidi (2012), Professor at the College of Education at Kuwait University, noted that attempts to reform education in Kuwait does not reflect the vision of the state as much as expressing the vision of only a few people.

2.5.1.2 Problem with the curriculum

Kuwait shares with a lot of Arab countries their general education features, which the third report of the Arab Human Development described in just three words: lack of quality (Almughaidi, 2009). The report explains that one of the special features of education in the Arab world is that the curriculum, methods of teaching and assessment methods are dedicated to indoctrination, receiving and saving information, but does not allow for much dialogue, discussions and exploratory active learning, let alone opening the door for students to enjoy the freedom of critical thinking.

The curricula in all grades in Kuwait are many but weak and do not keep pace with students' abilities, and do not develop their talents. Most of them depend on the theoretical aspects and not the practical. It is dominated by significant redundancies and repetition due to ideas from the past and working in accordance with an ancient educational mentality in an era of speeds and flow of knowledge and information which is called globalization (Report of the Committee for the Development of Education, Al-Jarida newspaper, No. 22, 26/06/2007).
It emphasizes what came up in a survey conducted by Al-Qabas Newspaper on 100 teachers from various schools in Kuwait. 77% of the teachers confirmed that they cannot teach all the subjects' content in the curriculum because of the immense size of the curriculum and frequent use of information. Only 23% said that they completed teaching the entire curriculum. 62% of the same sample confirmed that the curriculum of the Ministry of Education needed further review and adjustment (Al-Qabas newspaper, 2012).

The limitations of curriculum quality may exhaust the educational process in the country, and the first victim of this problem is the students. Difficulty with the curriculum, forcing students to save the information, lack of use of new educational means and methods of teaching, all make

the students bored and keep them away from studying, and then the negative effects begin with failure among students.

The study by Al-Qabas newspaper (2012) has pointed clearly to the existence of an imbalance in the course content of Kuwait's curriculum of education which seems to favour language and heritage subjects such as Islamic Education, Arabic Language and History at the expense of more scientific subjects such as Maths, Science and ICT. It is noticeable that the study time dedicated to the first group of study materials is up to about 60% of the total teaching and study time in the public education, versus 40% of the time dedicated to the second group of study materials or study content. This imbalance in the study and teaching time for the sake of indoctrinating linguistic and social heritage subjects belonging to a world of the past is at the expense of scientific and technological subjects which belong to the world of the present and the future. It will necessarily have a negative impact in terms of waste of effort, money and time, which leads to being left behind as far as scientific progress and world culture are concerned. This fact may explain the cause of mediocre results for Kuwaiti students in international competitions for academic achievement in science, mathematics and English because the timetable to teach these scientific courses is limited, and the lack of time for teaching science, mathematics, ICT will only ensure that the achievement of Kuwaiti students continues to lag behind those of American, English or Japanese students.

2.5.1.3 Problems of the teacher

A weak preparation of teachers in Kuwait's colleges of education is considered one of the main reasons for the problems of education in Kuwait. In this case, students teachers are taught in colleges of education using purely traditional method of teaching that depends on saving the information as well as indoctrination, while not allowing students to participate, debate, or even dialogue. Thus, the student teacher acquires these traditional methods of teaching, and transfers them as such in his field when he/she becomes a teacher, and teaches his/her students in schools with very much the same traditional method of teaching.

The teacher is considered one of the main pillars in the development of the educational process, and the success of any educational system depends on the level of teacher preparation.

So, it has become necessary to develop the educational institutions represented in the College of Basic Education, the Public Authority for Applied Education and Training, and the College of Education at Kuwait University, all of which train, prepare and educate the student teachers of the future and develop programs to prepare them towards achieving integral human development and education's desired goals.

It is necessary to draw the attention and focus to the development of teacher preparation programmes in the colleges of education which ought to prepare them in a way that allows them to meet the requirements of the modern era and thus translate the educational goals sought by Kuwaiti society into practical reality.

In the report by Tony Blair which was published in the Al-Qabas newspaper (2012), he mentioned there are two main factors that are driving the level of quality among teachers and students' achievements: firstly, to get the best people to take over the task of teaching; and secondly, to train and prepare them to be active, effective and competent teachers. In Kuwait, the process of choosing, employing and training teachers is inconsistent with or not in line with the best systems of performance. This becomes evident in several ways as described in the following:

- It is difficult to attract the best competencies to the profession of teaching. The social status and financial compensation paid to teachers in Kuwait are low. The salary of a teacher is similar and close to the salary of public sector employees who enjoy easier working conditions. According to a Central Bank report, the initial salary for teachers in Kuwait is almost 650 KD a month, while the average salary of government employees is 590 KD, in a time when teachers are working more hours and doing a very meaningful job.

- The recruiting standard for students who want to be teachers is low. The average rate of acceptance for students to enter the Colleges of Education at Kuwait University and the Public Authority for Applied Education is also low: 71% compared to 89% for admission to the College of Engineering, for example.

- Preparation and training are insufficient. At the College of Education at Kuwait University, and the College of Basic Education in the Public Authority for Applied Education, there is only one practical training course for one semester before graduation, while the rest of the curriculum in the early years of study in the College of Education, often involves theory curriculum and content which could be very far from the reality of practical training for the teaching profession.

2.5.1.4 Problems in educational administration

The educational administration is considered one of the main causes of the educational crisis in the country. The Al-Jarida newspaper (2007) reported that the educational report issued by the National Commission for the Development of Education accused the educational administration in Kuwait for idleness, corruption, and lack of discipline. Moreover, some of their leaders and employees have abandoned their responsibilities, with a changing image of the school as an educational institution, as well as poor process decision makers, the absence of research foundations, and conflicting decisions. The academic professors of the colleges of education in Kuwait find that the school administrators and educational leaders are generally ineffective in performance their role within the educational institutions. The report attributed the main causes of the deterioration of education in Kuwait to the absence of a long-term strategic vision for the future in the Ministry of Education, not to mention the political inefficiency of educational decision makers in successive ministries of education (Al-Jarida newspaper, 2007).

On the other hand, the academic staff of the colleges of education, as stated in the Al-Qabas newspaper study (2012), consider their roles in the process of educational reform and development as limited, and those who are education officials and responsible in the Ministry of Education do not depend on them in this field. They also see that decisions taken for development and educational reform are made individually, without planning, without thinking or seeking to take advantage of the capabilities of those who are specialised representatives of the academic staff at the colleges of education at Kuwait University and at the College of Basic Education under the Public Authority for Applied Education. When those academic staff see that there is a gap between them and the central administration of the Ministry of Education, the officials in the Ministry of Education usually ignore the opinions of academic staff at the

colleges, and their research remain trapped in the ministry because leaders in the ministry do not want others to interfere in their work, decisions and educational procedures. In other words, these officials are not interested in scientific research, and do not use it or resort to it, unless the educational problem becomes a major public opinion issue. In short, the vision of the academic staff in the colleges of education and their relationship with the officials in the Ministry of Education is often negative and based on suspicion, caution and lack of cooperation, either because of a crisis of mutual trust between the two sides, or for lack of coordination and communication between the colleges of education and the Ministry of Education (Al-Qabas newspaper, 2012).

In this regard, the central educational administration at the Ministry of Education have their problems, but school administrations are also rife with their shortcomings and negative remarks which can only emphasise the administrative weakness of this sector.

Various forms of weak school administration in Kuwaiti schools are many. Alsawy (as cited in Khalaf, 2011) mentioned certain negative aspects that characterised school administrations in Kuwait, including the school director's lack of familiarity with the school administrative work to be done, the lack of experience, failing to perform his duties, or the weakness of human relations in the field of administration and its impact on the work between the director of the school and the teachers. Alsawy mentioned that the widening of the gap between the school administration and the teachers adversely affects the performance of the latter, and so he resorts to frequent absences or frequent authorisation which makes him indifferent to developing his skills in teaching and education. These have their effects on the level of academic achievement of student; and so, the student resorts to frequent absences, and even depends on private lessons. All of these combined have a negative impact on the educational process in the country (Khalaf, 2011).

2.5.1.5 The role of the family

Many Kuwaiti families do not anymore carry out duties towards their children. They are mired in an easy life, thereby giving up their role and duty to follow their children and instil positive values in them toward school, or encourage and motivate them to learn. They have hired out

these tasks to foreign domestic workers (maids) who unfortunately are now performing these roles for most Kuwaiti families instead of the Kuwaiti mother or father.

The problems of education in Kuwait are many. In addition to what has been mentioned as the main problems in education, there are also other problems that come as a result of the major problems that have been looked at thus far, for example, the problem of frequent absences by students, and the problem of having private one-to-one lessons. These problems come about as a result of the difficulty relating to the curriculum, and the teacher's inability to deliver scientific educational content to students. This has led to a large number of students in Kuwait having private one-to-one lessons and hence frequent absences from school. Also, there is the problem of a small number of students who enrol in higher education. Tony Blair has indicated in his report that among the problems facing education in Kuwait is the low level of enrolment at university or college compared to other Gulf countries. Blair has pointed out that the number of Kuwaitis who have completed their university education has not exceeded 10%.

There are also problems such as the negative school environment, characterized by low educational activities and weak incentives and the lack of effective teaching methods in the classroom. There are in addition to the lack of scientific trips for students, as well as the lack of laboratories and scientific equipment in schools. As well as the small number of actual hours of teaching and learning, given that the academic school year in Kuwait is short (160 days only) compared with 200 days in developed countries which are members of the Organisation for Economic Co-operation and Development (OECD), the total number of official study hours in primary schools is 576 hours versus 815 hours in OECD countries. And in high school, there are 565 hours in Kuwait versus 718 hours in OECD countries. And in a report over the educational indicators for the Ministry of Education in Kuwait in 2007 (p. 88), it reportedly confirmed that the number of weeks of study in Kuwait is still less than six weeks compared to the number of weeks of study in OECD countries. With such a low number of actual hours of teaching, the educational process has turned into a race to teach the curriculum merely to save without understanding it.

Finally, all educators in Kuwait agreed that students are not the real cause of the crisis and problems in Kuwaiti education, with some having gone so far as saying that they consider the

student as a victim of the crisis and the problems in education, a victim of educational policy of the state and victim of the curriculum, school administration, and teachers altogether (study of Al-Qabas Newspaper, 2012).

2.5.2 Views of Kuwaiti specialist educators on education reform

To address these problems, specialists in the field of education in Kuwait, as stated in the Al-Qabas newspaper study (2012) and the report of Tony Blair (2012), recommend the following:

- The need to agree on an integrated strategy for education, and support it with legislation and laws required for developing an education system (quantity and quality) that includes all levels of education from nursery to university, connecting the goals and educational programs with the goals of comprehensive development and labour market requirements. And the Kuwaiti government, as represented by the Ministry of Education, has carried out serious studies aimed at developing this integrated strategy and finding appropriate solutions to these problems afflicting the education system in Kuwait.
- The appointment of a new Minister of Education who is interested in educational matters and seeks reform and renewal.
- Attention to the teacher scientifically, morally, financially, technically and educationally through professional preparation with ongoing follow-up and training.
- Purification of the school curricula of excessive padding inmost literary theory modules, and a focus on science materials and educational activities, as well as attention to go along with the era and its applications, and reliance on the development of methods of scientific critical thinking, and integration into the modern education system.
- Take advantage of research and university studies about the issues of education in Kuwait, especially the research and studies by the academic staff who specialise in the field of education.
- The use of technology and e-learning in teaching (in addition to traditional learning) because of the benefits and advantages of both approaches in education.
- The development of school buildings and transforming them into an attractive place for students.

- Strengthening the relationship between home and school through regular meetings of the students' parents and teachers or any other innovative methods, and involving parents to experience the educational problems and to contribute to the treatment of these problems which relate to the students' progress.
- Work on the reform and development of educational administrations, and going along with the latest methods of management and administration in the field of education, and to give greater freedom to the school administration to manage their school, and to apply regulations in line with improving the quality of school administration, as well as achieving education's desired goals.

2.6 Technology and E-learning in Kuwait

Technology in Kuwait: The Alwatan Newspaper (2012) pointed to a study conducted by the company and the website bayt.com, the largest and the most popular website on employment in the Middle East. This study showed that the main reason for the use of technology and the Internet in the State of Kuwait is to participate in online social activities via social networking sites (at least three hours on average everyday). The study concluded that there is a clear trend in Kuwait in favour of the use of social networking tools, and that social networking sites most used by Kuwaitis are Facebook, Instagram, Twitter and YouTube. The study reported that watching videos, listening to music and sharing photos via social networking tools are popular daily activities for young Kuwaitis connected to the Internet. The study showed that the majority of young males and females are using social networking tools via their smart phones for the purposes of social and entertainment activities such as watching videos and sharing photos or chatting with friends, and a proportion of them use the Internet for shopping and other online activities like buying tickets. The Alqabas Newspaper (2012) pointed out that Kuwait is ranked 75 globally, and ranked 9 among Arab countries in terms of the use of information and communication technology (according to the World Report on Information Technology for the years 2011 and 2012, issued by the World Economic Forum). On the other hand, Kuwait is ranked 95 globally in the readiness level of information and communication technology. And at the level of individual use of information technology, Kuwait is ranked 45 in the world. It is also ranked 128 in the world in terms of company readiness, and ranked 105 in the world in terms of government readiness.

The state of Kuwait seeks via its Ministry of Education and Higher Education to make use of e-learning and its features, and to apply them in the learning and education process.

E-learning is defined by the Ministry of Education according to the e-learning strategy of the state of Kuwait as learning that depends on technology such as computer, internet and communication networks inside and outside the classrooms and under the direct supervision of the educational authority which is also called the blended e-learning model.

2.6.1 Objectives of E-learning in Kuwait

In the previous definition, the objectives of e-learning were defined as those components forming a part of the general framework of an effective educational environment at schools and educational organisations in the state of Kuwait. These include the following:

1- Provide a unique educational model for the state of Kuwait which could become a pioneer in the Arab world.
2- Develop society and create a cultural movement aiming to build a cognitive economy for the state of Kuwait.
3- Improve learning and education by spreading the proper cultural recognition for supporting educational programs and thus enriching the educational process in the state of Kuwait.
4- Participate in programs of reform and development of education via communication and information technologies as modern tools for providing a curriculum in all educational levels with various activities and events, while working on development and updating methods and styles of teaching, and playing an effective role in developing all elements of a comprehensive educational system.
5- Spread a culture of self-learning within Kuwaiti society with schools students at its core.
6- Develop a technical Kuwaiti educational environment by adopting what technology has achieved in the field of education and learning tools.
7- Enrich the educational environment with more resources and activities to facilitate both processes of learning and education as well as the benefit to be sought from education.
8- Create an environment of real time interaction among learners, and between them and their teacher on the other hand via the means of modern communication such as the internet.

9- Consider the individual differences among learners, enabling them to finalize the learning process through proper environments without prejudice to the principle of equal opportunity.
10- Transfer the role of teacher to being a leader who guides the educational process away from dictation.
11- Enable students to grasp the subjects of the course in a method that copes with their ability via video, audio, printed method or the like.
12- Provide instant services in the field of education, learning, instruction for teachers and learners and all personnel at the educational organisation as well as parents on a continuous basis inside and outside the school, and in so doing to support self-learning and take into consideration individual differences among learners.
13- Establish a substantial and renewable database for scientific and practical subjects, and participating in developing and increasing the effectiveness of teaching.
14- Initiate integration between computer and all educational fields, achieving the educational objectives in all their dimensions and encouraging the teacher and learner to use technologies of communication and information such as the internet to develop knowledge and skills in different life activities.

2.6.2 Strategy of E-learning in the State of Kuwait

The Ministry of Education considers e-learning to be one of the most important pillars of the educational process and its development from the phase of dictation and negative education to the phase of innovation and interaction, self-dependence and positive learning. The philosophy of e-learning is based on finding an interactive environment that is rich with applications based on technologies of the computer and internet which enable the student to access the source of learning at any time and from any place. This provides the best way of learning using the modern mechanisms of communication in terms of computer networks and multimedia via audio, video, images, and mechanisms of research and e-libraries, and via internet gates whether for distant education or inside the classroom.

The supreme objective of this e-learning strategy is to educate a generation in self-learning so as to cope with international advances, thereby serving the nation and hence leveraging the role of

the student to be an effective learner and not only recipient; to achieve this the role of the teacher and society must be leveraged towards the modern educational process, and hence provide an educational and teaching model that is effective and developed in the state of Kuwait via the following strategic vision:
“Prepare a generation that is innovative and creative by developing the national capabilities to use information technologies and communication in dealing with resources of knowledge in order to raise education.”

This message is represented in the development of education using technologies of e-learning and using modern communication tools such as computer networks, multimedia and internet gates so as to provide information for learners as quickly as possible with the least cost and in a way that allows for the educational process administration and control, and to measure and evaluate learners’ performance.

2.6.3 Model of applying e-learning in the state of Kuwait

The approved model of strategy of e-learning in Kuwait includes the following aspects:

1- **Educational system:** this aspect depends on the educational system in the state of Kuwait, and their basic pillars are the teacher, learner, and curricula; this is extended in the system of e-learning to take care of providing interactive electronic curricula that depend on multimedia, and such curricula are presented via computers and internet in an interactive infrastructure. And this ensures the interactions of students with digital curricula (e-content) in a synchronous way via Kuwait’s educational gate with the ability for the teacher to receive feedback via the system of educational administration provided by the gate.
2- **Administrative aspect:** this aspect focuses on the administration of e-learning through the system of educational administration which is considered one of the main components of e-learning, by developing the educational administrative system based on what copes with the new phase of e-learning.
3- **Institutional aspect:** this aspect depends on coordination among educational institutions in the state of Kuwait, which must integrate to achieve their objectives. Institutional

integration sought by e-learning in the state of Kuwait depends on cooperation and integration among the following institutions:

- Ministry of Education
- Higher education institutions that include Kuwait University, private universities, the Public Authority for Applied Education and Training (the setting for this study)
- Kuwait Foundation for the Advancement of Sciences
- Kuwait Institute for Scientific Research

4- **The economic aspect and labour market:** the successful application of the e-learning system via the model suggested and its different aspects shall contribute positively towards solving the problem of coping between education outcomes and labour market in the state of Kuwait, and this is through concentrating on the capabilities and skills of students via the philosophy of e-learning and vision of the Ministry of Education in building a generation of innovation and self-learning. The issue of coping between needs of society and outcomes of education may become annoying for decision makers in the state of Kuwait when noting the huge number of university graduates annually with no labour market capable of encompassing them, due to the unavailable abilities and skills required by the labour market for graduates.

2.6.4 Description of operational framework for projects of e-learning in the state of Kuwait

This framework includes the following projects **(from website of the Ministry of Education)**:

1. **Infrastructure project**

   This phase of the project aims to provide, prepare and equip a developed data centre containing all equipments with high specifications, with the ability to accommodate the biggest number of PCs and e-mail, e-library, electronic content, whether for students or teachers, and so the project aims to update and develop the electronic infrastructure at schools of the Ministry of Education, in addition to projects connecting all schools using a fast and unified optical fibre network.

The Ministry of Education says that the first phase of this project was launched at the end of 2009 and it includes building a developed data centre. It was finalised at the beginning of 2011, and the Ministry of Education refers to this phase which owns the best and fastest data centre in the territory, as certified by Microsoft, Intel, and Dell.

This component of the project aims to provide a central data centre coping with international standards, the object of which is to prepare the proper environment to deal with services of e-learning so as to be able to manage networks of schools and educational areas at the Ministry of Education in an effective, secure and dependable way, featuring easy use and maintenance. And so the main data centre shall be the main hub accommodating the educational Kuwait gate through which curricula shall be accessed (electronic content). This data centre is considered one of the main pillars of the infrastructure, which works around the clock, and secures – via the educational Kuwait gate– the e-learning service for school students, teachers, administrators, and parents of students at any place and any time, and this provides for the first time in the state of Kuwait the service of communication in an easy and fast way among all components of society.

2. Project of Educational Kuwait Gate

This project aims to provide an e-environment of education which shall serve students, teachers, administrative staff, parents, by establishing the educational Kuwait gate which is a kind of portal providing the following services:

- **Provide the educational environment:** via settings of e-lessons for the curriculum which were developed via the project of e-content. Additionally, this environment provides communication and contact tools among teachers and students, where teachers manage to set up subjects on the gate and then follow up the performance and efficiency of students via the educational administration system.
- **Provide administrative services for administration staff:** with the help of student record and enrolment system, allowing the administrative staff and parents to enable admission of students inside the school, as well as easy access of parents to any piece of information, especially for his children and with no need to go to school, this

happens via text messages or using email, and so providing the chance for the administrative and educational authority to notify the parents in case of absence or any problem that needs notification of the parents in addition to notifying them in case of any awareness forum or clarifying dates of exams, distributing certificates, etc.

- **Provide educational services:** providing enriching materials and tools of e-communication for the student and the teacher by using email of the ministry and other tools of communications to enable the students to correspond with their teachers and to enquire about any references of the curriculum or to send their homework to them.

3. **Project of interactive electronic content**

   The electronic content is considered one of the most important components of the e-learning system, where interactive materials are provided digitally via the educational Kuwait gate to be accessed at any time and at any place.

   Electronic content is part(s) of the curriculum to be designed in multiple forms such as voice, image and interactive elements in terms of educational units or the so-called Learning Object.

   Availability of digital content with their different forms is necessary for the completion of the e-learning cycle where the curriculum is presented via the learning management system, and the student can learn and interact with the content to achieve maximum interest, helping him towards excellence and self-learning. And so the teacher can follow performance of students via reports and tools provided by the learning administration system and educational gates.

Standards of electronic content development at Ministry of Education

The electronic digital content shall be designed and developed ensuring high quality according to international standards and enabling the ministry towards participation in building the national cognitive stock of Kuwait. The following is a fast synopsis of the standards followed by the Ministry of Education in the state of Kuwait for developing electronic content:

1) **International standards for designing electronic content:**

   This standard ensures that electronic content shall cope with the latest release of international standards and SCORM standards.

2) **Instructional design**

   The instructional design shall be the main access point in developing interactive electronic content. And it is defined as a group of organised methodological procedures on the basis of which scientific knowledge shall be applied in different fields of learning. The instruction designer plays the main role during development of electronic content to define terms of specifications required for the educational system with its inclusion in terms of scientific resources, lessons and curricula. The approach adopted in the instructional design, based on “fixable design”, avoids the “linear design” including the maximum flexibility of learning and building student abilities and skills. And so, all effective factors in the educational process are taken into consideration, in a way that develops critical scientific thinking among students.

   The importance of instructional design arises from it being the main factor in defining the effectiveness or ineffectiveness of the educational process using different methods of teaching and education. And so, a defined and clear track is set to develop electronic curriculum, allowing for more effectiveness in the instructional design. The instructional design for e-curricula of the Ministry of Education adopts an international model ADDIE, consisting of five main phases: (1) analysis, (2) design, (3) development, (4) implementation, and (5) evaluation.

It is worth mentioning here that I have used this model (ADDIE) in designing the course content of the General Teaching Method Course (304) in the current study. I will discuss the ADDIE instructional design model and how I have used it in the third and fourth chapters.

3) **Development of electronic content using educational elements**

The comprehensive learning object is a comprehensive instructional unit showing a comprehensive concept and carrying a pedagogical objective that is measurable, and the unit consists of the following:

- Pedagogical object(s) related to the learning object.
- Concepts it demonstrates and presents as learning object, presenting them using multimedia or interactivity.
- Activities and training related to the pedagogical objective of the learning object.
- Evaluating student level of achievement in terms of concepts presented by the learning object.

4) Standard specifications for project to develop e-content

As mentioned, electronic content is one of the most important elements of e-learning where the interactive scientific materials are provided with full demonstration via the internet, and where they are accessed at any time and from any place, and the electronic content shall be designed according to international standards so as to enable its usage via any environmental standard.

4. Project of smart classrooms

Smart classrooms provide many features that contribute to providing a unique educational environment such as:

- Provide better educational utilities and more advanced teaching methods.
- Develop the skills and thoughts of students via searching information and recalling thereof using communication and information technology and the internet at any field or educational material.
- Ability to present new activities and studies, and this applies to all educational levels which represent an enriching resource for educational installation.
- Develop performance and skills of teachers with methods of demonstration to make lessons more effective and more interesting while at the same time accommodating the understanding and innovation capabilities of students.

Most important technological tools for smart classrooms

- Interactive board

- Data-show
- Classroom control centre
- Computers serving students inside/outside classrooms
- Classroom managements systems

5. **Project of providing laptops for every teacher and student**

   Teachers, students and the supervisory authority are considered the main pillars for leveraging the educational process, and so attention must be drawn to the development of their capabilities and skills at the e-learning environment by providing the best technical help and e-utilities to prepare educational lessons that can bring forth the objective information and basic idea of the material and curriculum, and to achieve this we can see that provision of laptops for the class is an important issue as it gives the chance to instructors to prepare lessons and educational materials in a better way and make it easy to access information by students. This project signals the climax of maturity at the environment of e-learning in presenting a model of interactive learning that enables the teacher to present lessons with high efficiency and with the help of learning administration system, and a class management system that can easily follow up on the student's performance.

6. **Project of E-services**

   - **E-library**

     The philosophy of this project is focused on building and developing e-libraries and working on cooperation with major e-libraries, and so Arab and international resources of information shall be integrated with Kuwait gate of education, and the learner shall be able to search for information in electronic books and references. And so, this project aims to encourage teachers and researchers towards innovation and production of knowledge information and increased rates of research and development.

   - **Administrative systems and their integration with the educational Kuwait gate**

     All the administrative systems must integrate with educational Kuwait gate for easy performance with a unified access to systems so as to support the educational process.

In addition to this, they must integrate with the gate of education or any other gate of the administration, whether developed inside the ministry or from other government authorities, and this leads to promoting the role of total educational administration, and supervision at all corners of the educational project for full effectiveness.

7. **Project of training and preparing the educational staff and professional rehabilitation**

The project of training in the system of e-learning aims to provide teachers with all the tools that make him the navigator and main leader of the process of education at the age of e-learning and move away from the process of dictation. A precise program is prepared to train teachers with components of the electronic e-education system and how to use their tools and programs and navigation element effectively in the electronic system. And so, this means making use of the initiative of strategic partners of the Ministry of Education, i.e. Microsoft, Intel, and Cisco.

This project includes training of all classes of personnel, from educational and supervisory staff, and other staff such as administrators, technicians and supervisors; this is to raise the efficiency of performance and promoting the level of education and administration that can cope with technological advancement.

The professional training plan includes a number of aspects, the most important of which is training on different electronic learning systems, starting from interactive board, classroom management systems, and ending with educational gate and electronic curricula and computers.

8. **Project of edification, culturization and media**

This project aims to plan and execute a comprehensive campaign using printed and visual media, and so road ads and activities of public relations are used to establish awareness with targeted audience of education development and projects of electronic learning, thereby implanting its culture in the society. And so it aims to spread awareness among Kuwaiti society on the importance of integrating e-learning and the use of information and communication technology in the educational process. This is done via a national

campaign directed at management and school administration, teachers, students, parents and society.

Project of (My Bag is in My Pocket) “flash memory”

The project of flash memory is the first to be applied and released by the Ministry of Education in the form of saving the content of curricula on a flash memory like e-books, where softcopies are provided of all textbooks with features of navigation and writing notes, using indexes and printing and moving among books and pages, etc. This flash memory is distributed among all students of public classes, religious education, and adult education by the Ministry of Education, to accompany students both at home and school. This represents an easy alternative for hardcopies where students can navigate on computer at home or anywhere. Distribution of such flash memories among students started at the beginning of 2012:

Figure (1): Project of My Bag is in My Pocket

According to what was provided by the assistant secretary for educational research and curricula at the Ministry of Education, Mariam Al-Watid, the main objective of this project is to alleviate the use of school bag among students via loading textbooks onto these flash memories, where 906 textbooks were loaded, i.e. 400 books in public education, 232 books in religious education, and 274 books in literacy and adult education.

Figure (2): Content of e-book (project of flash memory)

After years of debate, and so many statements from officials at the Ministry of Education, the first step of e-learning in Kuwait has been confined to the use of flash memory in 2012, which is disregarded by students due to its uselessness, since schools are not qualified to use it due to lack

of required access and computers or the lack of internet at many classes in Kuwait schools. And so, the ministry did not fulfill its plan of distributing laptops to students which it once declared and promised, nor did it prepare itself properly before starting to distribute flash memory to all students. The e-learning project in Kuwait is now 8 years old since the idea first emerged in 2004, only one of which is the project of flash memory.

The Ministry of Education claims that the project of flash memory was useful for some students, i.e. students of public education, religious education, and adult education with a total of 34 classes at these departments, distributed as 14 classes in public education, 8 in religious education, and 12 in literacy education for the three educational levels. As such, flash memory helped in alleviating the use of school bag by students.

But the Al-Anbaa newspaper (2012) referred to reports issued over the 6 educational areas in the state of Kuwait, describing the negative aspects of the project of flash memory as follows:

- This project was not provided as a try-out in some schools before circulation so as to gauge its positive and negative sides before implementation.
- There was no comprehensive awareness campaign on the objectives of the project and to make it clear to school principals and teachers, parents and students of the Ministry of Education's plan to start distributing flash memory among students directly.
- No guides were distributed with flash memories to denote their importance or how to operate and use them (importance of awareness campaigns preceding execution of any project – this was totally lacking).
- Flash memories were not distributed to teachers.
- Some flashes distributed were empty and cannot be used, and some of which were damaged and the school did not get any proper replacement.
- The textbooks on the school flash memory were read only, and the student could not note down, define or summarise anything on the pages that he wants, despite the availability of separate pages for making notes, and there are also no means of communication or discussion boards between student and teacher.
- Some pages and images in the flash memories distributed are upside-down, and so some fonts are not recognised by the students' PCs.

- The objective of this project was to alleviate the use of school bags by students, but things have remained the same (nothing's changed).
- Many students do not have PCs in their homes and this affects the use of the flash memory.
- School cabinets in which students should leave their books are not suitable and most of which are damaged.
- Many key subjects cannot do without textbooks at home to solve exercises and applications such as Arabic, English, and Mathematics.

After the emergence of such issues and such negative reports on the project of flash memory, the Ministry of Education, as reported by Al-Watan newspaper (2012), lately withdrew the project temporarily due to the negative issues that emerged, and the current Minister of Education, Dr. Naif Al-Hajraf, has formed a committee to study the feasibility and continuity of the flash memory project in its current condition. And Al-Watan newspaper (2012) speculated that the flash memory project shall for sure be cancelled or changed radically and this shall be declared after the committee finishes its work, as ordered by the Minister of Education, and finalizes its revision and recommendation for this project.

Conclusion

As we have noted in this chapter, Kuwait endures real problems in its education system, most eminent of which are the issues of curricula, the problems of teachers, and the absence of a clear vision from the central administration at the Ministry of Education, in addition to weak administration at the school level.

This may interpret or explain the current confusion as to one of the projects of e-learning in the state of Kuwait (flash memory). This project was applied in public education, with huge budget allocated to it, but at the end this project failed. And it did not appear as a flexible and interactive e-course, it was a traditional curriculum with electronic media, and many problems and negative aspects were hastily presented and distributed among students with no try-out by the Ministry of Education to test its viability.

Some experts and educators, even some specialised technicians at Kuwait University, as reported by Al-Qabas newspaper (2012), saw that the application of an ambitious e-learning strategy is overwhelmed with many issues and hardships, the first of which is that the Ministry of Education did not provide a comprehensive and free board to apply this electronic system, and the current committee formed by the Ministry of Education to manage the projects of e-learning lacks specialisation and features to achieve the aspired results from this electronic system in case of applying it. Al-Watan newspaper (2012) reported some educational sources as saying that the Minister of Education, Dr. Naif Al-Hajraf, requested a reconsideration of the strategy of e-learning and further work on improving it such as adding some specialised experts in the field of e-learning to work with the committee to prepare a strategic plan of e-learning for the state of Kuwait. It was a good move from the Minister of Education, as he waited, reconsidered and added specialised experts in the field of e-learning to work with the committee formed to manage the project of e-learning, allowing for more studies and updates, and ensuring that previous mistakes do not occur again, as in the flash memory project.

Sometime ago, Kuwaiti society listened and watched officials from the Ministry of Education and higher education about the project and strategy of e-learning in the state of Kuwait. It was thought to be a qualitative move to develop the process of learning and education in Kuwait, but till now no real executive steps have been taken except the first step which is the project of infrastructure completed in 2011. And according to what is provided by officials in the ministry, other projects are in progress, but upon questions from journalists to officials in the ministry about the schedule and expected finish-date, no clear answer was given to this question. Still, the Kuwaiti people still await this project and hope that this huge project for the state of Kuwait meets expectation and achieves its aspired goal.

This researcher, as one of the keen followers and concerned people with this subject, sees the necessity of having a certain organisational structure, for example, a national centre to manage the project of e-learning in the state of Kuwait. Such a centre shall be a permanent, independent and free centre for management of e-learning projects, encompassing specialised educationalists in the field of e-learning, thus moving away from the current situation where management of this huge project is taken over by a committee branched and formed by the Ministry of Education. This transformation from the traditional system to a new electronic system needs huge efforts

and team work in order to conduct studies and set strategies proper for preparing the current educational system towards moving to the a electronic educational system due to issues being endured by the current educational system in the state of Kuwait. We heard a lot about this project via statements of Ministry of Education officials in the media, but we also need to initiate a culturization process in Kuwaiti society about this project, and to actually start training teachers and students in that regard. There must be a specialised centre with certain regulations and systems to manage a project of such magnitude, and not a committee formed of a group of individuals appointed from within the Ministry of Education. They managed to set a strategy for the system of e-learning with no definite time nor clear mechanisms of execution except for a mere theoretical frame, as clarified in this chapter.

On the level of Kuwait University, attempts have been made to make use of e-learning due to efforts of some new academic staff members who did their post graduate studies in advanced countries such as the UK and USA. Having acquired new methods of teaching from such countries and realising their importance for use in the process of learning and education, they have started to apply what they learnt and use these modern methods of blended learning in their courses.

As to the College of Basic Education (setting of current study), as far as the researcher is aware, methods of e-learning have not been used in teaching, and what is currently used in teaching still follows the old traditional system. The current study is considered to be the first of its kind, at least in trying to apply blended learning methods and e-learning, and teaching students for a full term using VLE and PLE to verify the effect of using such new methods of teaching (new at least to the Kuwaiti environment) on academic achievement and students' level of satisfaction. And this precisely is what gives this study its importance. This is especially so when educationalists in Kuwait, in suggesting solutions to the education crisis in the country, all recommended the use e-learning and blended learning in education and teaching. Furthermore, the current projects from the Ministry of Education in the state of Kuwait seem to be moving more and more towards the application of e-learning and blended learning and trying to integrate it into the process of instruction and learning.

It is important to analyse the Kuwaiti educational system so as to highlight the context of why I am doing this study. In that regard, the traditional system is not particularly helpful and so what I am trying to do is to bring in a new approach (blended learning) to the Kuwaiti educational environment. So, to achieve the aim of the study (identify the effect using blended learning on female student-teachers) and be able to address the research questions as well as testing the study hypotheses, it was necessary to deal with and discuss the issues that confront the current education system, especially the fact that the female student-teachers in this study have all graduated from public schools under the current education system in Kuwait. It means that those female students have been influenced by the current education system, which seems to have focused more on indoctrination, receiving and saving information, passive role for students, not allowing much discussion and not letting students enjoy the freedom of critical thinking. It was also necessary to discuss technology in terms of Kuwait including the social uses of technology (as in this chapter) in order to underline that the main reason for technology and Internet use in the State of Kuwait is to participate in online social activities via social networking sites, and that there is a clear trend in Kuwait in favour of the use of social networking tools. We also wanted to show that the majority of young men and women in Kuwait are using social networking tools for the purposes of social and entertainment activities such as watching videos, sharing photos and chatting with friends, and not necessarily for furthering their education.

Chapter 3: Review of Related Literature

This chapter will examine the Virtual Learning Environments (VLEs) and Personal Learning Environments (PLEs) in terms of their underlying concepts, advantages and examples. Afterwards, I will focus on blended learning in terms of its fundamental concepts, why it is important, proofs of its success and efficiency, methods of designing blended learning including the ADDIE instructional design model, constructivism and behaviorism learning theories, and how these two learning theories are related to blended learning and instructional design. The role of the teacher and student in both Behaviorism and Constructivism will also be looked at. Finally, I will focus on the educational activities, interaction and motivation in blended learning.

3.1 Virtual Learning Environments (VLEs)

Using Virtual Learning Environments in distance learning through the Internet is considered the most important means for presenting lessons and lectures on the internet. Several international institutions, which specialised in learning technologies, developed these Virtual Learning Environments in which the main elements needed by both the learner and the teacher are available. Therefore, many universities and educational institutes use these Virtual Learning Environments as the most important and active method for applying distance learning programmes.

3.1.1 The Concept of Virtual Learning Environment

Georgouli (2011) mentioned that VLE is a software system that facilitates the processes of e-learning for group or individual learning. Such processes basically happen on the Internet and provide many management functions such as uploading, downloading, monitoring and evaluating of the students' learning progress and management of educational material, etc.

On the other hand, Kuit and Fell (2010) defined VLE as a collection of integrated learning support tools which typically comes as a single, commercially available product such as Blackboard or else available as an open source, e.g. Moodle.

According to the definition of 'WhatIs? Technology' encyclopaedia, virtual learning environment is considered a set of learning and teaching tools designed to improve the level and expertise of learning regarding students through the use of a computer and the internet in the education process (http://whatis.techtarget.com/definition/0,,sid9_gci866691,00.html)

Also according to the Wikipedia website, a virtual learning environment (VLE) is a system that creates an environment designed to facilitate teachers in the management of educational courses for their students, especially a system using computer hardware and software, which involves distance learning. In North America, a virtual learning environment is often referred to as a "Learning Management System" (LMS) (http://en.wikipedia.org/wiki/History_of_virtual_learning_environments).

To sum up the definitions provided above, virtual learning environment is an advanced technological system which allows students to have distance learning through the web. This system enables the teacher to formulate a new learning environment through the designing of electronic curricula and finding ways for direct and indirect communication between the teacher, the student and the curriculum through the advanced tools that are made available in the system, and designed for the teaching and learning processes.

3.1.2 Advantages of Virtual leaning environments

Some of the virtual learning environment's advantages were outlined in the site of Leeds Metropolitan University and those of the UK Centre for Legal Education and the Higher Education Academy as well (Al-Qahtani, 2011; Basyoni, 2006). Some of these advantages may be outlined as follows:

- Learning process and feedback could be done anytime and anywhere through the virtual learning environment.
- Less cost and preparation: virtual learning environments do not need study rooms, university or school spaces nor transportation and expensive school tools.

- The possibility to serve a great number of students in different geographical locations and at different times without limitations regarding their ages.

- Good technology, high speed for treatment and follow–up, interaction and continuous response available through virtual learning environments and reducing burdens of teacher and educational administration as it does not need a follow–up for attendance, absence or recording grades, as all this is done electronically.

- The great amount of cognitive basis designed for virtual rooms including libraries, encyclopaedias and research centres on the web.

- The possibility to open a new axis in discussion sections available in virtual learning environments which encourages the student to participate without fear or shyness.

- It does not need advanced technological skills whether on the part of the teacher or the learner or even the educational administration. They are simple and easy to deal with especially when it comes to using the available tools in these virtual learning environments.

- Unburdening the teacher of the heavy burdens related to revision, correction, recording grades and organising. It grants him the opportunity to devote himself to his direct educational tasks, improving performance, raising his standard, dealing with new technologies, and acquiring knowledge, skills and expertise.

3.1.3 Examples of virtual learning environments

There are several ready-made programmes on the web for virtual learning environments. These programmes may be found to a great deal in most academic sites on the web. Al-Mubarak (2004) and Al-Qahtani (2011) mentioned some of them as in the following:

- **Caroline**

Caroline is considered an open source programme, i.e. it is not limited to one body or particular company in terms of ownership, development, modification or usage. New copies of the programme can be obtained via the company's site on the web and this copy can be tested on the website.

The Caroline programme provides tools for the teacher and the learner on the web. The teacher can perform the following tasks through this program:

- Establishing a new class or curriculum and whether it is a general curriculum from which all the site visitors can benefit or private curricula only for students registered in this curriculum
- Setting exercises and activities in the curriculum
- Putting documents and files (texts, videos, flashes, sound, etc.)
- Discussion and dialogue domains in addition to the possibility of establishing student groups to dialogue among themselves
- Putting up announcements for students and schedules for teacher activities
- Putting up important sites which students are advised to visit

The student enters the teacher's site through this program and chooses the curricula where he is registered. Consequently, the student can answer the exercises, interact with activities, send assignments to the teacher, view schedules, announcements and files put up by the teacher and enter into discussion domains whether synchronous (chat) or asynchronous (discussion

- **Second Life (**http://secondlife.com**)**

Second Life is a 3-D virtual world created by its residents. Since opening to the public in 2003, it has grown explosively and today is inhabited by millions of residents from around the globe. This virtual world has many uses including but not limited to educational learning experience.

- **Sloodle (**http://www.sloodle.org**)**

Sloodle is an open source project which aims to develop and share useful, usable, and desirable tools for supporting education in virtual worlds, making teaching easier. Through engagement with an active community of developers and users, the Sloodle project hopes to develop sound pedagogies for teaching across web-based and 3D virtual learning environments. Sloodle is a free and open source project which integrates the multi-user virtual environments of Second Life and the Moodle learning management system.

- **Blackboard** www.blackboard.com
- This is one of the most popular systems used by universities and educational institutions worldwide as a virtual learning environment. And in this study, the researcher has also used Blackboard for the first experimental group in his teaching of the course 'General Teaching Method Course (304)'.

This system enables the teacher to prepare and publish the curriculum with the possibility of using multimedia, whether images, drawings and video in addition to a PowerPoint presentation. It also enables the teacher to put up useful links for students regarding research and studies available on the web as well as preparing tasks and assignments for students using all kinds of questions whether via objective tests or articles in addition to the feedback feature and immediate answers to students.

The teacher can also realise accurate statistics about the levels of each student's attainment in every test. It also provides him/herself with good potentialities to communicate with parents through e-mail messages.

The teacher can make use of the following advantages of the Blackboard:

- Preparing and designing the curriculum electronically and wholly which includes texts, images, videos and sound
- Blackboard can be used to support and supplement face-to-face learning or to develop fully interactive classrooms where one may be involved in online discussions and group presentations

- Assessing students through preparing different models of articles and objective tests in addition to tasks and assignments.
- Benefiting from the self-assessment questions tool available in the program which relays immediate feedback to the student when participating in answering questions in this tool.
- Communication between the student, the rest of his/her colleagues and the curricula teacher through available communication tools (discussion, e-mail and chat).
- Facilitating learning electronically through active means for search, inquiry and recovery of data from curricula content, word dictionary, their meanings and the image library which the program provides for every curriculum.
- Granting powers for participation to student users and designers in the one curriculum.
- Recording students' grades and assessing their skills in learning and communicating with the curriculum electronically.
- Obtaining graphic indications explaining the amount of student participation and their use of the program tools.

- **Moodle** (www.moodle.com)

The Moodle system is one of the open source virtual learning environments and is completely free to use. It is a course management system designed to help educators who want to create quality online courses. The software is used all over the world by universities, schools, companies and independent teachers. Through this program, any staff member interested in this field can download the program from the company's site and then easily design and establish a site related to the curriculum that he will teach.

This system provides the teacher with the possibility to offer the following activities to his students:

- Reference activities: these include books and references which the teacher can give to his students in the form of Word or PDF files for the students to

download or through hyperlinks in some useful sites available on the web and related to the curriculum.

- Applied activities: these require the student to provide his teacher with an essay whether directly written or in the form of a file. The teacher will comment on this activity and send the feedback to the student and grant him the grade he deserves.
- Exercises and assignment: these include multiple choices, true or false, or short answer questions. After the student finishes the exercise, he is given the grade he deserves. There are several choices for the teacher in putting up the exercise; he may ask the student to answer the exercise once or several times and can also determine the exercise period, etc.
- Surveys: the teacher can do surveys in each and every part of the curriculum on his students and obtain the results once they are voted for.
- Opinions on participation: this is done through discussion, chat and dialogue domains.
- Reports and statistics: the program provides the teacher with a complete report completed with accurate statistics about students' visits to the site and the grades they obtained as well as the activities they submitted.

It is worth mentioning that there has been a study conducted by Humboldt State University making a comparison regarding the students' level of satisfaction with the two systems: open source (Moodle) and closed source (Blackboard). They found that the (Moodle) system surpassed the Blackboard when it comes to the level of student satisfaction with the systems are compared.

The study showed that some of the most important points by which the Moodle system is distinguished from the other are the simplicity and easiness in using tools in addition to the method of providing immediate feedback, students' follow–up and class activities. This emphasizes the higher level which the system has reached, the amount of supporting tools, easy to use and the rapid update compatible with e-learning developments even if it is an open source system.

In this study, I used Blackboard with my student teachers (in the first experimental group) who followed the General Teaching Method Course (304). The reason for using Blackboard rather

than other VLEs is related to the former's advantages mentioned above in the Blackboard section, besides the fact it is already available in Kuwait in one other educational institution (Kuwait University). And so, there was cooperation with the e-learning centre at Kuwait University for developing a space for the course (304) on the Blackboard. In addition, the College where I carried out my research (College of Basic Education) is planning to buy a VLE, of which one of the most prominent choices is Blackboard. In fact, I did not for a moment hesitate to choose Blackboard, because in addition to the reasons already mentioned, this is also a very good opportunity to see the impact of using it with the students of the College of Basic Education, which is in the process of selecting a VLE in order to buy.

3.2 Personal Learning Environments (PLEs)

With the evolution of the Internet and the availability of Internet access through high-speed digital subscribers (DSL), there has been a proliferation of the so-called Web 2.0, regarded as the second generation of web technology which includes, for example, blogs, social network sites, podcasts, wikis and access to the internet via a broadband connection. Web 2.0 refers not simply to the technology itself but the way in which it is applied and exploited (Kuit and Fell, 2010). The concept of e-learning has changed and its methods of presentation and interaction now include more interactive and specialised aspects.

A personal learning environment (PLE) is considered one of the newest approaches that use technologies for teaching and learning in online environments with respect to higher education. It is based on a learner-centred view of learning, and is different from the Virtual Learning Environments. PLEs can be used in formal and informal learning environments.

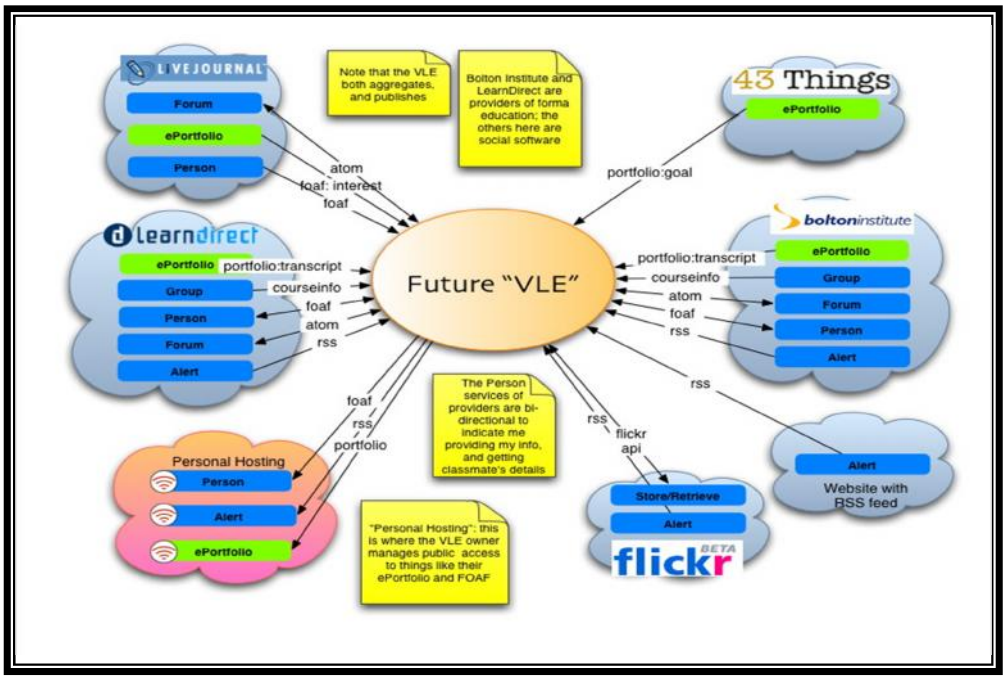
3.2.1 What are personal learning environments?

The first reference to the term personal learning environments was in 2001 by Oliver and Webber (2001) who introduced it in a paper during a specialised conference. Thereafter, a number of researchers in the field of educational technologies sought to codify this concept in order to get a clearer vision of it.

There is no specific definition of personal learning environments. Downes (2006) has defined personal learning environments as a tool that enables the learner (or anyone) to engage in a distributed environment consisting of a network of persons, services and resources. Moreover, FitzGerald (2006) defined it as ”a collection of free, distributed, web-based tools, usually centred around a blog, linked together and aggregating content using RSS feeds and simple HTML scripts". Also, Van Harmelen (2008) has defined the personal learning environment as a system that helps learners take control of and manage their own learning.

Wilson et al., (2006) put together a plan of internal components of the personal learning environment, which he called the future virtual learning environment (VLE of the future).

Figure (3): VLE of the future



http://zope.cetis.ac.uk/members/scott/blogview?entry=20050125170206

Figure 1 shows that the personal learning environment is a compilation of a set of miscellaneous services and features to serve different contexts by one or more educational resources, and personal learning environments have to regulate approval between these services to get the required benefits. This means that the personal learning environment is not a programme that can

be installed, but it is a concept for blending a set of miscellaneous services that could be organised, arranged, added and adjusted according to the wishes and needs of the learner.

The personal learning environment aims to help people monitor and manage their own learning processes, and to offer support for them by (Van Harmelen, 2008):

- Identifying their own learning objectives
- Managing the learning process, of content and process alike.
- Communicating with others in the learning process and thereby achieving the learning objectives.

Also, these environments will help the learner with the production and consumption of educational resources when needed. In this way, it will ensure that each learner will get the most appropriate content for him/her. We also find that the personal learning environment encourages learners to participate and exchange content instead of keeping it, which is what a learner does in a virtual learning environment.

3.2.1 How can one create a personal learning environment?

Anyone can create his/her own learning environment in several ways (either using specialised sites on the web or using special software). One of these is for the person to open his/her blog and then participate in the various aspects of the sites and services which interest him/herself and offer those in his/her blog. Moreover, the person can use homepages such as Google and then utilise the dispersed channels in the homepage to bring in the appropriate educational information sources.

And, of course, creating a personal learning environment is not easy, because the learner needs to be fully aware of his/her educational needs so that it can be dealt with from other helpful resources. Besides, the personal learning environment may take other forms in terms of its presentation and work.

3.2.2 What are the necessary tools for creating personal learning environments?

These tools can be divided into four categories (Van Harmelen, 2008; Al-Khalifa, 2008):

- **Tools to assist in the formation of educational content:** such as social networking sites for example *Facebook*, sites for pictures, video sites, blogs, wikis, and others.
- **Tools to help in social communication and connection:** services that help people connect with each other to exchange experiences and information. Examples of these sites are *Facebook*, *Twitter* and *My Space*.
- **Tools to assist in the effectiveness of previous tools:** such as the use of site summaries and tags for the description of different sources.

The reasons for the current trend in the use of more personal learning environments in education are the increased need for lifelong learning, to increase access to information and people, to create more opportunities for work, and the desire to communicate with other people for work and learning using more effective e-learning methods that are under the control of the learner (Al-Khalifa, 2008).

3.2.3 Using Facebook in Education as a Personal Learning Environment:

Facebook is a social network site launched on February 4, 2004. It allows users to create their own profile, make friends, find former friends, and help them exchange information, messages, personal photos, videos, and comments on specific subjects. It also allows users to join several sub-networks from the same site in a certain category, such as a specific geographic area, a particular school or specific university and other places that help the user discover more and more people who are in the same category of network. These networks allow users to connect to members who are in the same network, and users can add friends to their pages and allow them to see their personal pages and information.

Facebook is one of several social networks which have received an overwhelming response from people everywhere. Once you are registered, Facebook asks if you want to add friends and family members to your page, and then you can communicate with friends via messaging, live chat, and posting photos and last updates on your wall on Facebook. When Facebook first emerged, the goal of its founder - Mark Zuckerberg - was to design a site that can link up his colleagues at Harvard University, and allow them to exchange news, photos and opinions. With today's generation, sometimes called by some people the "Facebook generation", we note that

most college students communicate through Facebook. This one writes comments, while another uploads photo, and others create a page of the revolution, etc.

Nevertheless, Facebook cannot be considered as a mere tool or site to make new friends, communicate with friends or find out about what is going on in the world. It is also a tool that can be used in education, for it is possible for teachers to use Facebook in teaching, particularly in higher education, in order to improve communication and to integrate students in interactive activities that are different from traditional teaching methods, and it can be complementary to classroom activities.

Virtual learning environments (VLE) such as Blackboard and Moodle are appropriate ways to manage and practice e-learning in an orderly way. However, students of the second generation who use blogs and social network sites as a way to share information and communicate with others may find that these VLEs will not give them sufficient flexibility in controlling how they learn. From there, the idea of using Facebook as an alternative for VLE came about, as well as using Facebook as a Personal Learning Environment (PLE), because it gives the student more powers than s/he would have had with the VLE, for in the VLE, the teacher is the person who manages and is in control of the learning environment, but in Facebook the student can manage and take control in addition to the teacher within the learning environment.

There are a lot of ideas that could benefit the university teacher from various disciplines in the use of Facebook, especially as a tool in teaching to increase the effectiveness of the educational process. Rego (2009) mentioned some of these ideas which include: (https://www.facebook.com/education) (http://www.scribd.com/doc/16957158/Teachers-Guide-to-Using-Facebook-Read-Fullscreen**)** (http://emag.mans.edu.eg/index.php?page=news&task=show&id=321)

- Create a group for a specific course or module, and then invite the students who are already registered in this course or module to join the group to facilitate communication and exchange of information and to benefit from the articles and useful links which will be posted by the teacher or other students, and to participate in the discussion over related topics of the course. This is a great idea to create a central location for communication between all the students and the instructor of the course.

- Publish photos and appropriate educational video clips related to the content of the course, exchange them between students, and comment and/or discuss them.
- Make friendships and relationships with interested specialists in the topics and subjects of the course from all over the world, and exchange information and experiences with them.
- Use Facebook as a way to continue the relationship between graduated students to encourage continued learning in the same area of study.
- Use it as a means to invite students and others for various educational events.
- From the beginning of the course until the end, the teacher can schedule events for the entire class using Facebook.
- Sending messages between the teacher and the students and students with the other students is very easy through Facebook.
- The teacher can post notes after each lesson for the students of the course, and students can then access them for review.
- Provide direct and live online communication between the students and instructors, and between the students and other students in the same course.
- Allow shy students who may not want to communicate with their teacher face-to-face after the class or during office hours to use Facebook to communicate with the teacher more comfortably.
- Using Facebook can facilitate classmate connections, where students get to know each other more intimately, and become more involved in the learning experience.
- The teacher can make and send announcements to remind students of the course about test time, due dates of assignment, classroom news, any change in the location of the lecture or anything else related to the course.
- Students and instructors can post and share interesting websites related to the content of the course.
- Most students are already users of Facebook and are comfortable with it, and this will help them engage in the class and provide a comfortable way for students to participate in it.
- Students can follow news feeds relevant to the content of the course in order to keep current information flowing through the class.

Facebook contributes to e-learning through its multiple applications (Apps) for both students and teachers which contribute to the enrichment of the educational process, such as:

- **Flash Card app:** The teacher can add educational activities through this app.
- **Book Reviews app:** Students can post and share their book reviews for the instructor and other students using the book reviews app.
- **Links app**: Students and the instructor of the course can post links to interesting things found on the Internet that are related to the content of the course.
- **Slide Share app**: Instructors and students can use this app to create their own slide presentations as part of the class.
- **JSTOR Search app**: this is a great way for students to find articles that are related to the course content through the use of this JSTOR app.
- **Poll app:** The instructor can use this Poll app as an interactive tool in the class or to conduct surveys to get students' opinions.
- **Quiz Creator app**: Use this app to create quizzes, tests and assessments for students.

3.3 Blended Learning

Today, higher educational institutions face several demands imposed by successful scientific and technological developments. They also need to face up to the increasing demand for higher education to upgrade its efficiency, effectiveness and quality in order to comply with the requirements of the era, as well as meeting the needs of the labour market through the development of human resources.

In order to achieve and meet these demands and needs, it was necessary to bring about radical changes in the system of higher education. This is because the style of teaching is still very traditional inside the classroom, but it also needs to employ the recent developments in communications and information technology. Such developments are characterised by flexibility, efficiency and effectiveness, and ensure that the course materials and curricula will reach university students at any time and in any place. At the same time, the pattern is able to give students the capacity and the skills as well as the necessary knowledge for success in their social life and career in this era of on-going revolutions in knowledge, technology and communication.

Therefore, many institutions of higher education in the different parts of the world have resorted to the use of blended learning based on a merger between the traditional or face-to-face learning and e-learning. Many studies have substantiated the effectiveness of developing the educational capacity and skills of both students and teachers. Examples of these studies will be provided in 3.3.2 section. So, what is blended learning and what are its significance and benefits? Are there any evidence for its effectiveness and success?

3.3.1 The concept of blended learning

Blended learning is something of a new subject these days, but just like the term 'e-learning', everybody has a different understanding of what it means (Macdonald, 2008).

There are many definitions for blended learning and some of them will be dealt with. Before doing so, it should be noted that there are other names being used for blended learning such as hybrid learning, integrated learning, multi-method learning, or mixed method learning (Node, 2001).

Littlejohn and Pegler (2007) define blended learning as a combination of traditional teaching method and e-learning element with a single course or programme. Further, Colis and Moonen (2001) defined blended learning as the blending of on-line learning and face-to-face learning, where teaching and learning are carried out both online and in the classroom.

Selix (2001) defined blended learning as the blending of synchronous and asynchronous communication between the teacher and the student. And there are those who expanded this definition such as Osguthorpe and Graham (2003) who defined blended learning as a combination or mixing between the ways of communication via the Internet and the meeting of teachers and learners via face-to-face session.

In defining blended learning, Driscoll (2002) identifies four different concepts:

- To combine or mix modes of web-based technology (e.g., live virtual classroom, self-paced instruction, collaborative learning, streaming video, audio, and text) to accomplish an educational goal.
- To combine different teaching methods based on multiple theories (e.g., constructivism, behaviourism, cognitivism) to produce an optimal learning outcome with or without instructional technology.
- To combine any form of instructional technology (e.g., videotape, CD-ROM, web-based training, film) with face-to-face instructor-led training.
- To mix or combine instructional technology with actual job tasks in order to create a harmonious effect of learning and working.

There are other researchers and writers who define blended learning according to the first concept and definition of Driscoll. Singh (2003), for example, claims that blended learning is considered a blending of different effective methods in teaching and learning. He refers to the fact that blended learning does not only provide many and different options, but is also more effective compared to the traditional method (Singh, 2003).

Bonk and Graham (2006) claims that the first and second definitions of Driscoll above suffer from a problem regarding the definition of blended learning that is too broad, as if it includes all systems and equipment of virtual learning.

The third definition of Driscoll (2002) is popular among many researchers including Harriman (2004) who argues that blended learning mixes between e-learning using the internet and direct learning with the teacher. The objective behind blended learning is to provide the most effective and most efficient educational experience through blending and mixing more than one method of teaching (Harriman, 2004). Moreover, Smith argued that blended learning is considered a means for distance learning using technology such as TV, Internet, and Voice Mail, provided that they are blended and mixed with face-to-face learning done inside conventional classrooms (Smith, 2001). The Rochester Institute for Technology (2004) provides a definition which states that blended learning is linking, uniting and blending the best methods of learning and teaching inside the classroom along with the best methods of teaching and learning through

the internet (Rochester, 2004). The Training and Education Department in New South Wales repeats this definition by saying that blended education is a learning that blends and combines direct methods and electronic means (NSW, 2005). Voos (2003) repeats the same definition in saying that blended learning is combining and mixing direct means with electronic means. He goes on to say that blended learning leads also to a reduction of the sitting period inside the class (Voos, 2003). Caulfield (2011) supported this in her definition of blended learning in her book "How to Design and Teach a Hybrid Course" as a type of teaching method that reduces (face time) and have it replaced by time spent outside the traditional classroom.

There are other writers and researchers who provide definitions for blended learning by combining both the first and third concepts of Driscoll. The Royer Centre for Learning and Academic Technologies (2004) provides a definition for blended learning as a mixture and combination of different learning strategies or different learning methods and a number of means and multimedia to the extent that these learning strategies and means include face-to-face learning and distance e-learning using the internet with a number of learning strategies and methods (Royer, 2004).

From the previous definitions and views of blended learning, it is to be noted that the majority of the definitions agree that the blended learning concept is a form of modern learning methods which employs e-learning using information technology, communication tools, and electronic means, without abandoning traditional learning, where learners come to meet with the teacher and other learners in the classroom. So, both traditional learning and e-learning are shared and merged together so as to accomplish the teaching and learning processes and to achieve the desired goals and objectives.

In this study, blended learning is a teaching method which blends online learning and face-to-face learning while reducing the time of face-to-face learning. This is where students attend classes, meet the instructor of the (304) course, as well as doing online activities, participating in online discussions, and receiving feedback via the internet using VLE of Blackboard and/or PLE of Facebook.

3.3.2 Why Is Designed Blended Learning Important?
Evidence for the efficiency of blended learning in teaching and learning

It would seem that the specialists in teaching and learning are those most concerned with blended learning. Because of this concern, many studies were conducted on blended learning and they included all education levels, from primary school to university studies. The best summary regarding the concern of educationalists and teachers with blended learning is what Flavin (2001) said - that the concept of blended learning is not new. Good classroom teachers always blend and mix their teaching methods such as reading, writing, lecturing, dialogue, practice, project, and self-learning. All these are considered to be among the most effective forms of blending (Flavin, 2001).

There are many studies indicating the advantages of blended learning, for example, the study by Wingard (2005) showed that blended learning leads to increase in the interaction among students, and between the teacher and students, and at the same time raises the level of students' learning. The study by Sands (2002) indicated that the conversation and discussions in traditional learning is negatively affected by the academic timetable. For example, if a student has an idea on Wednesday, and he/she wanted to express this idea to the teacher or fellow students, and say the next class is on the following Tuesday, then he/she will be forced to wait six days to discuss the idea. But in blended learning, the student can discuss the idea at any time with the teacher and fellow students. And in Anderson's study (as cited in Al-Qahtani, 2011) which was conducted with 4000 students using blended learning, the results showed that blended learning led to improvement in student achievement.

The results of a study conducted by Dean et al. (2001) revealed that by providing several electronic options for learning through the internet in addition to face-to-face learning inside the classroom, the students' level of learning increases. Another study revealed that the interaction and satisfaction of students with the curriculum improved a lot in addition to an increase in students' learning when blended learning is used in teaching them (DeLacey and Leonard, 2002).

Among the advantages of blended learning are the flexibility of attendance. In most classes in which blended learning is used, the student can study at the time s/he chooses and if the student did not attend the classroom lecture, he can watch the lecture at the same time with students in the class. He/she can also view the lessons he did not attend and study them on the internet using the virtual learning environments. This helps students follow the lessons and not to lag behind in their studies. Conventional learning inside the classroom and e-learning through the internet have their positives and negatives. As Alvarez mentioned, the electronic environment is not the ideal environment for all learning and being satisfied with learning inside the classroom alone is not good. That is why most teachers focus their efforts on blending and mixing learning using technology through the internet and face-to-face learning inside conventional classes to create a blended learning environment (Alvarez, 2005).

I think it would not be advisable to dispense of face-to-face learning so as to use e-learning alone, especially in some countries (such as Kuwait and the Arab countries), where students are not accustomed to e-learning and self-learning alone, as their educational systems and curricula depend on indoctrination, receiving and saving information, and relying on the teacher while neglecting the role of the learner. In contrast, it is difficult in this era of technological development to use face-to-face learning alone without e-learning, because in this case, both methods (face-to-face and e-learning) will not be able to make use of the advantages of the other. Face-to-face learning has its advantages and benefits, for example, direct meeting as well as contact and interaction between the student and the teacher. E-learning also has many advantages and benefits; for example, in an online learning environment, students can learn at different times and locations (at anytime from anywhere). The solution in my opinion is to use a blended learning method which allows one to take advantage of the strengths of both face-to-face learning and online learning.

Among other studies (as cited in Al-Qahtani, 2011) denoting the efficiency of blended learning, the study conducted by Stanford University and that by Tennessee University constitute a valuable contribution regarding certain methods and mechanisms which make blended learning better than conventional learning and even better than those done only through pure e-learning. These studies make educators confident that blended learning grants the ability to increase the efficiency of the learning process and be more effective, too. Stanford University have more than

ten years of experience in self-progress and enrichment programmes for gifted students. However, the problem with these programs was that only half of students with higher motivation complete these programmes. These programmes diagnose this problem as there is an absence of compatibility and consistency between the learning method favoured by students – interactive, social and individual learning – and the method of presenting the programmes.

The introduction of e-learning in these programmes to satisfy these needs has increased the rate of students who completed the programmes to 94%. This development and improvement have to do with the ability of live direct action to motivate students and encourage them to complete the self-progress programmes at the most suitable time as well as the possibility of interaction with other students and teachers.

The Stanford University study suggests the necessity to blend and mix e-learning with direct live learning in self-progress programmes and subjects. The study confirmed that this can have a deep effect on the rate of students completing and benefiting from the programs.

Colin (2005) has pointed out that blended learning combines and organises the electronic content, which help reduce the use of heavy textbooks from the classroom. When using the electronic textbook and sources, the cost of purchasing textbooks is reduced, as well as removing the medical fears from carrying heavy books, especially among younger students. The study of Valerie considered blended learning as a powerful strategy that could lead to the expansion and improvement of the learning experiences of learners (as cited in Alkhoder, 2008).

As in the study of Graham, Allen, & Ure (2005) which looked at the reasons students choose blended learning, they found the following: the improvement of teaching methods, where learning via blended learning relies more on strategies of interaction in learning, learning strategies of the student and his colleague, and the use of learner-centred strategies, and increased flexibility.

Blended learning also contributed to increasing the proportion of school attendance, where the percentage of students attending according to a study by Oblender (2002) was about 99% of the total number of students in general. A study by the New Jersey Institute of Technology (2005) found that blending the best features of face-to-face learning with the best features of online learning leads to active learning and self-learning, as well as reducing the time to sit down - not desirable – for students inside a real classroom.

The study by the University of Central Florida (2001) indicated that students who studied via the blended learning method got better and higher achievement than the students who studied by the traditional teaching method or by a pure online learning method.

The Tennessee University study (as cited in Al-Qahtani, 2011) regarding PEMBA for physicians in the middle of their occupational lives proved that the blended learning programs can be completed in about half the period and half the cost through blending and mixing between e-learning methods using the internet and direct live learning inside conventional classes and self-learning.

Among the most important points in this study is that blended learning was able to achieve better learning outputs, exceeding at a rate of 10% the learning outputs for students who studied using the conventional method. The study refers this positive result of the PEMBA programmes to the abundance and enrichment of the blended learning method which combines several forms of learning methods and means such as conventional methods and self-learning method and learning through virtual learning environments using the internet.

These studies reveal that blended learning enjoys a positive effect on the overall efficiency of learning programs compared with learning programs using individual learning methods (without being blended with other means and methods of learning).

Some reported advantages of blended learning:

Asynchronous learning: This means that students can learn the same material at different times and locations (Any Time and Any Place) in addition to face-to-face learning. The

learner can have access to the course at any time that is convenient, not just during the specific 2-3 hour period that is set for a traditional course. The episodes can be quick snatches at odd times or long late-night sessions. Also, learners do not have to meet in a lot of face-to-face lessons. That means they can be anywhere. Individuals can log-on at home, work, in the library, in a community learning centre or from their flats and hotels when they travel. Also, asynchronous learning leads to increased reflection time (Heckman and Annabi, 2005). For example, the online discussions which are conducted as part of the course give the students greater opportunity to think carefully before responding, participate in the subject under discussion, which means learners do not need to respond immediately to the discussion topic as in face-to-face discussions.

Therefore, the online discussion responses are generally more thoughtful when written than when given extemporaneously.

Self-study: This means students will learn how they can study independently and individually. They will need to manage themselves as learners, and not to rely on teachers and lecturers to give them direct answers and all the information and, most importantly, to work on achieving intellectual independence. Also, student-centred learning is generally perceived by students as more appealing and puts greater responsibility on the student (McMahon & Oliver, 2001).

Flexibility of attendance: In many of the blended learning classrooms, there is the possibility to study whenever the student chooses to do so. For example, if any student is absent, s/he may view some of the missed materials at the same time as the rest of the class, even though the student cannot be physically in the classroom. This helps students stay on track and not fall behind, which is especially helpful for students with prolonged sickness or injury that could prevent them from attending class (Alvarez, 2005).

Benefits of face-to-face: Also, when students have a meeting, they actually will get direct face-to-face interaction with the teachers who can help them. This face-to-face learning where the students and teacher meet in a classroom is very effective in giving learning a personal

touch as it were. It is good for workshops, job training and coaching. Also, there will be a sense of ease in communication and information sharing, exercises, immediate feedback on activities (Anderson & Kanuka, 1997), and paper-based tests used in the classroom. The student can ask and discuss with the teacher and other students, and the teacher can see and check the student's work.

Benefits of e-learning: Educationalists always search for the best ways and means for providing an interactive educational environment for attracting the attention of learners. E-learning media are considered to be among the most successful means for providing such an environment. Utilizing the potentialities of such an environment would result in many advantages which were specified by Al-Mousa (2004) and Al-Qahtani (2011). These include:

1. **Contributing to Different Viewpoints among Students:**

Immediate forums like discussion sessions and chat rooms allow for the opportunities to exchange viewpoints over the discussed subjects. This reinforces the chance of benefiting from the provided opinions and suggestions, and integrating them with the student's own opinions, which eventually help to establish a solid basis for the learner while enriching him/her with powerful knowledge and strong opinions, based on the acquired knowledge.

2. **Contributing to Forming a Culture of Co-Existence**

E-learning helps create cultural, social, political and religious dialogues, which cannot be achieved in lectures within the system of traditional education due to the social, ethnic, religious and cultural diversity of the e-university students, which exceeds its counterpart of traditional universities. This is especially true given that knowledge available online is of a global nature, and does not limit itself to a certain country or a particular group of people, thus reinforcing the culture of co-existence among learners.

3. **Departure from Accrediting Actual Attendance**

In traditional education, a learner should commit to a specific time schedule for group work. Currently, this is unnecessary as the new techniques have provided means of communication without the need to be present in the same time and place. Consequently, co-ordination within group work has ceased to be that annoyingly important.

4. **Maximum Benefit from Time**

This type of education plays a prominent role in saving time for both parties, the teacher and learner. As for the learner, s/he has the potentiality of immediate access to information whenever and wherever. Thus, there is no need for leaving home to go to the classroom, library or teacher's office. As for the teacher, s/he can send whatever the learners may need through his/her educational website, which saves time for both parties.

5. **Feelings of Equality**

This advantage stems from the fact that the means of communication like e-mail, chat rooms and discussion sessions grant every student the opportunity to forward his/her opinion at any time without any embarrassment. This is unlike the traditional classrooms, which deprives him/her of that chance due to mal-organization of seats, weakness in the student's voice, shyness, or any other reasons. This privilege particularly serves those students who may feel afraid or anxious, as this type of education enhances the students' courage to express their thoughts and search for facts much further than is the case inside traditional classrooms.

6. **Easy Accessibility to Teachers**

E-learning has permitted further accessibility to teachers in a relatively short time outside official working hours, as the learner has become more able to send his/her inquiries to the teacher through e-mails, etc. This privilege is of particular importance for those whose working hours clash with the time schedule of the teacher. It is also useful for inquiring, posing questions and continuous evaluation.

7. **The Possibility of Modifying Teaching Methodologies**

It is possible to acquire academic material in a way that suits the student. Some students feel comfortable with audio or reading methodologies, while others appreciate the practical methodologies. E-learning and its sources allow for the potentiality of applying resources through different and multiple methodologies, which gives space for modifications so as to arrive at the most suitable approach for each student.

8. **Minimizing the Administrative Burdens for Teachers**

E-learning permits minimizing the administrative burdens on teachers, which can absorb valuable time from each lecture through delivering assignments and the like. E-learning has reduced these burdens, as it has allowed for sending and receiving these items via e-means with the availability of detecting students' receipt of these documents.

9. Providing Courses 24 hours / 7 days a week

This privilege is particularly important for individuals who are willing to learn at an unspecified time or for those who shoulder other personal burdens and responsibilities. This advantage allows learning for all, at a time convenient for each, leading to more comfort and less boredom for learners.

10. Minimizing the Scope of Work inside Universities

E-learning has provided tools that carry on the mission of analysing grades and results, as well as providing statistics for them. It is also possible to send a student’s records from one university to another, or to any other destination.

3.3.3 Blended learning success factors:

The success of blended learning is based on a number of factors that must be met and taken into account when designing and implementing blended learning. Baldwin-Evans (2006), Almousa (2005) have all indicated a number of these factors, including:

Good planning: includes determining the function and role of both the teacher and the learner, and to identify how to use e-learning tools by both teachers and learners accurately.

Providing hardware: by ensuring the availability of various devices used in a blended learning environment, both for learners or at the educational institution.

The diversity of sources: the blended learning environment enables learners to access different information and resources, regardless of place or time.

Ensure learner readiness: This is done by ensuring their skills levels in the use of the computer and Internet, and technological culture.

Training: train learners on how to use the e-learning communication tools via the internet, and how to access the learning resources through these tools.

Providing support and assistance: this begins at the end of the training. Some essentials of a new skill may not be used directly in the training programme, and can be easily lost; therefore, it is important to provide learners continued support.

3.3.4 Challenges and difficulties faced by blended learning

Despite the many features offered by blended learning, like any other style or method, there are also shortcomings and weaknesses as shown by the application and use of blended learning at universities which tends to reduce the quality of the teaching process. Harriman (2004) indicated that the use of blended learning brings with it a range of challenges. Manage the educational system, design the blended learning environment and the distribution of roles, responsibilities and cost control so as to achieve the desired results of blended learning.

Milheim (2006) stressed that the use of blended learning is facing a range of difficulties, such as: The pressure on the teacher to respond to several messages from the students, as in contacting many of the students who ask the same question, as well as difficulties related to low skills among some students in terms of dealing with technology.

A study by Hijazi and others (2006) outlined a set of challenges brought forth by the use of blended learning in higher education: The needs of the blended learning environment ought to be aligned with the requirements of teaching that could work with this new teaching method. It also showed a lack of efficacy among some teachers in the teaching of courses using blended learning, as well as a lack of the time for training them on the use of technology, let alone the contrast between computers owned by the students in terms of potential and speed.

Groveman and others (as cited in Alkhoder, 2008) selected another set of challenges: Identify the appropriate sources of technology to employ them in the blended learning environment, as well as skills of the academic staff, whether technological or design courses skills in the blended learning environment. These are the most important challenges demonstrated by the use of blended learning in higher education.

Zayton (2005) added to the above other challenges such as: Slow Internet connection (especially in countries of the Arab world) disrupts the educational process and causes problems for participating in the online activities. The high costs of blended learning, for example, the high cost of hardware, fittings, software programs, and implementation of electronic communication between educational institutions, experts and students. Training the academic staff to use computers and the Internet and any type of VLE used at the university; another challenge is the lack of enthusiasm among the academic staff members of educational institutions and their reservations on the use of technology, e-learning or blended learning in their teaching.

3.4 Instructional Design and Blended Learning

The aim of instructional design is to make learning and teaching more efficient, effective and achieve the desired results (Morrison, 2010). Instructional design is defined as "a systematic process that is employed to develop education and training programs in a consistent and reliable fashion" (Reiser & Dempsey, 2007). Richry and Seels (1994) defined it as organised procedures that include steps for analysing instruction, as well as its design, development, implementation and evaluation. Furthermore, Abdul-Hadi (2009) defines instructional design as planned which is the link between learning theories and their applications in the reality of teaching and learning environments.

Instructional design is considered the heart of any educational programme or course, whether in face-to-face learning environments, in e-learning or in blended learning environments. When using the blended learning method in a course, the instructional design elements form the carrier bridge that converts the educational materials in the course from the computer, virtual learning

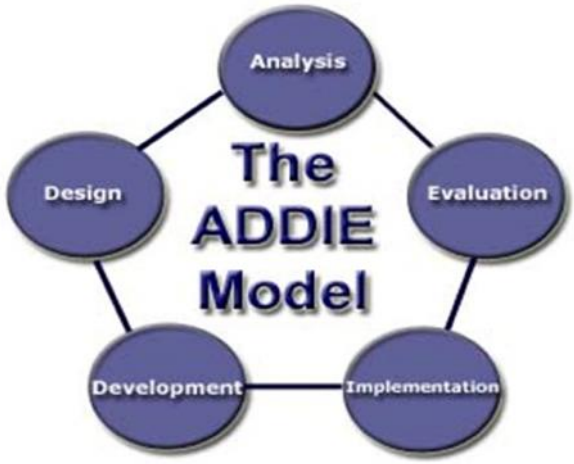
environments or personal learning environments to an educational programme. This is not only a transfer of the paper content of the course to the digital interactive course, but is also a technology investment to give added value to the teaching and learning and to enhance students' learning.

3.4.1 ADDIE Model

There are many models of instructional design that have been developed over the years, such as those by Dick and Carey (2004), Kemp's Instructional Design Model (1985) among others. However, most of them reflect and are based on the "ADDIE" model (Kruse, 2009). The ADDIE model first appeared in 1975; it was created by the Centre for Educational Technology at Florida State University (Watson, 1981). It is a systematic instructional design model consisting of five phases: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. This model is built on the common characteristics of instructional design models, and can be used in the design of any type of teaching or training, for both online and face-to-face learning, as well as helping to develop a common vision for the development of e-learning (Driscol, 2002).

Peterson (2004) defined the ADDIE instructional design model as "a common approach widely used in the development of instructional courses and training programs. This approach provides educators with useful, clearly defined stages for the effective implementation of instruction" (see Figure (4). And Morrison (2010) defined it as a framework that lists the generic process traditionally used by instructional designers and trained developers.

Figure 4: ADDIE Model



Each stage of this ADDIE instructional design model includes a set of sub-steps that must be taken into account until the design process becomes integrated. Shelton and Saltsman (2011) and Alsaleh (2005) mentioned these steps of the ADDIE model and its sub-steps when using this model for teaching online or face-to-face, as follows:

- **Analysis phase**

In the analysis phase, the areas required or needed are identified, the instructional goals and objectives are established, the target audience and environment are defined, and the learner's existing knowledge and skills are identified.

- **Design Phase**

This phase deals with lesson planning, activities relating to the content of the course, training courses required, selected suitable multimedia, identifying strategies for the content, identifying the aims of designing the course online or face-to-face learning, and assessment criteria.

- **Development Phase**

At this stage, the plan and design specifications made in the previous phase (design) were set forth, and then converted into a product which can be used with electronic content, all for the sake of meeting the needs of learners in the course.

- **Implementation phase**

This is the actual application of the system or the teaching method that the instructor wants to apply with his students in the course. So, the model is put into action and the material and content of the course are delivered to the students. This stage comes after the development process.

- **Evaluation phase**

In this stage, formative and summative evaluation is made of the effectiveness of the model that the instructor used with his students in the course.

In chapter 4, I will discuss how I used the ADDIE model and what I did in each phase when I designed the General Teaching Method Course (304).

3.4.2 Methods or Types for Designing Blended Learning

As the blended learning process tries to merge methods and activities of the traditional learning method with those of e-learning, the means and the available options are many, including, for example, the use of VLE, PLE, video conferencing, e-mail, self-assessment questions, asynchronous and synchronous communication tools, online discussions, CD-ROMs, videos, audio, films, photographs, and interactive learning activities as academic material.

Khan (2005) mentioned that the most common way to blend is to create a website that can be used by students outside the times of lectures or use of the VLE, and through it the teacher can design the educational materials and upload them onto these learning environments. Through these websites, the teacher can provide students with the material and educational activities, learning resources, PowerPoint, online discussions, list of various sources of books and articles related to the content of the course, addresses and websites related to the content of the course, as well as self-assessment questions.

Zayiton (2005) and Al-Mousa (2005) pointed out that there are many methods for the teachers to use with blended learning such as the following:

The first method: to teach students of the course one lesson (or more) through face-to-face learning, and one lesson (or more) online, and the final assessment can take place either through the traditional classroom (face-to-face) or through the online environments using online assessment tools.

The second method: to teach students of the course face-to-face and online, but the starting method is face-to-face learning, and then online learning, and the final assessment can take place through the traditional classroom (face-to-face).
The third method: similar to the second method but start this time with the online learning, and the final assessment can take place through the online environments using the online assessment tools.

The fourth method: to teach students of the course most of the time online but with some required time in the classroom.

The fifth method: to teach students of the course most of the time face-to-face inside the classroom, with some required time in the online environments.

3.4.3 Instructional design and learning theories

Although there are different theories of learning linked to the instructional design, with each of these theories having a philosophical basis for it (for the instructional design), the majority of the literature in this context refer to two theories: Behaviourist theory and Constructivist theory (Alsaleh, 2013).

Behaviourism is “a teacher-centered philosophy that focuses on human behaviour as a reaction to outside stimuli and believes that the changing environment can change a student’s misbehaviour” (Ganly, 2007). On the other hand, constructivism is “a student-centred philosophy that emphasises hands-on learning and students actively participating in lessons” (Ganly, 2007). There are two main strands of constructivist theory, namely, cognitive constructivism where the learners makes sense of the content presented to them, and social constructivism where the learners construct knowledge through social interaction (Kuit and Fell, 2011).

Behaviorist theory is concerned with stimuli and response, and from the apparent behaviour of the learner or in another meaning, it is concerned with measuring the observed behaviour of the learner. On the other hand, the constructivist theory is concerned with the internal cognitive processes of the learner, and whether the learner makes sense of new knowledge by creating their own meaning of it, according to what they have already learnt.

3.4.4 The role of the teacher and the student in both Behaviourism and Constructivism

The role of both the teacher and student varies according to both theories. The role of the teacher in the behaviourist theory is to use a direct instruction method and create a learning environment that encourages students to learn the desired behaviour and in this case the student is passive, whereas in constructivism the role of the teacher is to use an indirect instruction method and create a learning environment that makes the students build their own knowledge and this case the student is active. And what is required from the teacher (in Constructivism) is to focus on creating a learning environment and to help the learner access the learning resources (facilitator).

Table (2): The differences between behaviourist and constructivist theories

	Behaviourism	**Constructivism**
Instruction	Direct	Indirect
Teacher	Central - main	Advisor – Facilitator
Learner	Passive	Active
Teaching strategies focus on	Individual	Group
Knowledge	Received from outside	Created through the learner's active engagement with material.

(Alsaleh, 2013)

3.4.5 Motivation

Motivation is about the desire to learn. Motivation may be intrinsic, stemming from the psychological and social satisfaction of doing something for its own sake; or extrinsic, deriving from tangible, measurable rewards (Barnett, 2005). A model of motivation, related to a hierarchy of needs, was developed by the psychologist Abraham Maslow (1954). This hierarchy groups needs into five levels: physiological, safety, love/belonging, esteem, and self-actualisation. And the basic principle behind this theory is that a person will not be motivated by any higher-level needs until their lower level needs have been met.

Generally, theories of motivation may be categorised as either content theories such as those of Maslow and Herzberg or process theories such as the Vroom theory. Content theories define motivation in terms of satisfying needs and this theory focuses on identifying the motives for learning. While on the other hand, the process theory defines motivation as a rational cognitive process occurring within the individual, and these theories look at the process of motivation rather than the needs and goals that motivate people.

Herzberg's (Herzberg et al., 1959) motivation-hygiene theory (content theory) identifies hygiene and motivator factors. Hygiene factors include financial rewards, status, the degree and quality of supervision, and relationship with peers. Motivating factors include recognition, personal growth, promotion, a sense of achievement and responsibility (Barnett, 2005).

An example of a process theory is that of Vroom's (1964) Expectancy Theory which sees behaviour as driven by the expectations that the person, by the way she/he acts, will lead to the results she/he wants. This theory suggests that there are three steps in motivating behaviour: effort will bring better performance, better performance will be met with reward, and those rewards will meet the individual's needs.

3.4.6 Motivation for Designing Blended Learning

When teachers want to design a blended learning course, they should keep interaction in mind and how they will motivate their students in an online environment. Some teachers may make the mistake of thinking that designing a blended learning environment would mean that they just

have to upload the content of the course, find a lot of online readings and resources, and keep the same assignments. This is not the case. One of the most important things that must be kept in mind in designing a blended learning course is how to make the student motivated in an online environment. This does not mean that the teachers have to throw everything out that worked in a face-to-face learning course. But the teachers need to revise and rethink how the students can be successful in an online environment.

Transferring from the traditional face-to-face class (lecture, listen and take notes) to a blended learning environment would mean that teachers and students move to a more engaging environment, often called the constructivist model (Giuntini, 2012). In a blended learning environment which supports the principles of the constructivist model, it means that teachers are encouraging questions, bringing in activities, facilitating rather than just giving the students information.

It is easy for the teachers to think that all they have to do is write and post in the online environment and wait for students to respond in a similar manner. But this certainly is not enough to engage and motivate students in blended learning environments. Caulfield (2011) and MacDonald (2008) give suggestions on how to motivate and engage students in the blended learning environment; for example, using online discussions, small online working groups, collaborative activities, immediate feedback, and videos are key towards engaging and motivating students in an online environment. The teachers can post questions for online discussion in the discussion board. Students can respond and comment on each other's opinions, encouraging immediate student involvement with the material by creating a threaded discussion and asking students to review the content of the course and then to write one or two things that they would like to get out of the course.

Many face-to-face instructors devote some portion of their first class meeting to giving introductions to students. Teachers can do the same thing in a blended learning course if they decide to make the first meeting with the students of the course online rather than in a face-to-face class. For example, they can let all their students introduce themselves online and explain why they are taking the class and what they hope to get out of it. This can be in a threaded discussion or through social media, for example, by using Skype. Teachers can also encourage students to include images of where they are as part of their introduction. Facebook is very

helpful in this case, and a lot of students like it and already have an account on it. Social media does make people feel that they are connected and online courses need to adapt the best part of it, the interaction, posting team images and immediate feedback to help students avoid feeling isolated in the online environment. Asynchronous activity allows students to enter more deeply into their material or idea. Because it gives students a lot of time to stop and think about the material, look at facts, draft an outline of what to say in online discussions and to revise mistakes before others respond, this promotes critical thinking. In this case, students can be more confident in their work because they have done some preparation before participating in the blended learning environment.

This is different from traditional viewpoints in that it places the learner and not the teacher at the centre of learning. And this is one of the most important principles of the constructivist model, that is, it gives the learner a positive and effective role in the learning process, where the teacher is more a facilitator rather than a talking head. This is what happens in the blended learning environment.

3.5 Activities in Blended Learning and Online learning

Activities are considered from the characteristic traits of distance learning subjects (Lockwood, 1992), which assist in active learning and encourage the student to explore and interact throughout the learning process. Whatever the type of subjects, it would be more effective if the student is made to work towards becoming a positive and active learner, and not a mere receiver (Rowntree, 1994). Therefore, Oliver and Liber (2001) find that activities play a substantial role in specifying learning outcomes; e.g., they specify how the student will be integrated in terms of the educational content and building up of new knowledge.

In the views of Alsaleh (2013), designing effective activities which stimulate active learning is considered from the standpoint of the strongest challenges confronted at designing and developing the educational subjects of eLearning courses, as well as the possibility that the student would immerse in the subject of the study text in an effective way.

3.5.1 The Concept of Activities

In general, all educational activities are mental, physical, psychological, and social efforts carried out by learners according to their abilities, interests and preparations both inside and outside of the classroom for the purpose of acquiring certain skills, concepts or knowledge (Abduhadi, 2009).

Brophy and Allemman (1991) define activities as any form of work that learners are expected to do, beyond getting input from reading or listening, in order to learn, practise, apply, evaluate, (or in any other way) respond to the course content. Meanwhile, Beits and Paul (as cited in Alkhoder, 2008) define them as any deed performed by the student, such as reading, writing and group discussion through the internet, while Loockwood (1992) thinks that activities take different forms in distance learning but on the condition that they are to encourage the student to be positive and active, and not negative.

But Salmon (2002) considered the activities done through the internet by means of the term 'E–Activities'. These were designated for the necessary frameworks for active and interactive learning on the internet, characterized as asynchronous which can be done at any time. It is motivating, attractive and purposeful, performed during interaction among students through messages sent to them, on condition that these messages are designed by an e-moderator, and usually done through bulletin board systems.

3.5.2 Importance of activities in Blended Learning and through the Internet

Rowntree (1994) considers activities to be the cornerstone of distance learning materials, because of the many benefits they have for students, the most important of which is keeping students active in the learning operation. For without them, students may think that the unique aim is to keep information in the mind only. Activities are considered a means to help students understand facts and information from the lesson in a deeper way, and provide opportunities to practise the concepts they have self–learned.

Stephenson (2002) also adds that activities provide opportunities through which students build a joint–bridge between what they really know and what they did read, hear, or see in an electronic lecture. Such activities provide an opportunity for students to think about the methods that underlie their individual bias and understanding, as well as the methods in which they differ from the rest of the students.

But Lockwood (1994) reckons that including activities in the subjects and materials of distance learning via the internet enables students to think all by themselves when they face a question and a problem or when they need to deduce explanations, solutions or conclusions that assist them in learning what is required. These activities also provide an opportunity for students to be confronted with ideas and dissenting opinions challenging their beliefs and trends, especially when the purpose of activities is to stir discussion among students, that is, through participation in discussions. Lockwood (1994) adds that through activities, students can observe their progress and measure their level of understanding, as reflected in the content of their education. In addition, we find that activities assist students at least on the following points (Rowntree, 1994):

- Learning by practice and doing things all by themselves.
- Achieving objectives of the lesson through activities.
- Overstepping the limits of learning by heart and memory.
- Connecting their ideas and experience with the subject.
- Thinking and contemplating into their thoughts and all that relates to the educational operation.
- Implementing their learning in their practical and personal life; to transfer the outcome of learning and implement it in their practical life.
- Getting acquainted with their places of strengths and weaknesses.
- Achieving interaction with the elements of the educational process represented by the content, instructor and students.
- Developing the skills of self-learning by research, investigation, evaluating, analysing, and performing meetings.

Watkins (2005) views activities performed through the internet as resembling to a great extent the activities used in traditional learning. They are employed to achieve a variety of objectives,

such as getting students acquainted with each other, sharing experiences, reaping benefits from collective learning and increased participation, or encouraging students to develop constructive relations through the internet. Watkins (2005) also adds that e-learning activities ought to employ the communication tools available on the internet such as chat rooms and tools of discussion, e-mail to make students participate in activities, or any other communication tools, synchronous and asynchronous, that are available at virtual learning environments or the internet.

Moreover, activities play a significant role in students' interaction with their colleagues, by providing them with social and cooperative activities, the purpose of which is to experience participation and students interacting with each other, that is, through designing activities aimed at confirming communication, participation, discussion of information and experience, exchanging action, and initiating discussions to exchange opinions and to get acquainted with one another's opinions. All of this is being done by employing the communication tools available to them. The purpose of this is to make the student become a positive and active participant during the learning operation by feeling with the group spirit, and then increasing his/her motivation to learn (Giuntini, 2012). It provides an interactive environment that reduces the perception of seclusion and compensate for the unavailability of direct relationship between the instructor and the student.

Loegering and Edge (2002) conducted a study seeking to explore the effect of teaching that depends on the internet in supporting students' learning in a science course. In this case, the research tool included a group of educational modules that students study based on the internet, accompanied by a group of interactive activities in the form of a group of questions with different wording for each module. The results of the study showed that there were statistically significant differences between the grades of students who studied by the internet and those who studied by the traditional teaching method. The results of this study also showed that there were positive trends with the students who studied through the internet, for it assisted them to get acquainted with new thoughts, to grasp the different subjects, and to stir their concern.

3.5.3 Examples of activities in blended learning and learning using the internet

Due to extension of the activity concept in distance learning, it resulted in the existence of different types of activities which the instructor can design. Based on these different types of activities, researchers differed in the field of distance learning on how to classify activities (Commonwealth of Learning, 2005). For some of them consider activity as not much more than a question, and in other subjects, activity is an assignment done by the student, while some activities require the student to do less than cessation and thinking. And it is possible that other activities require summarized answers, or some activities require a longer time and effort, while some others require participation (Rowntree, 1994). And from the examples of activities that may be done by the student, Rowntree (1994) and Lockwood (1994) mentioned the following:

- Answering questions or exercises included in the educational subject such as: answering a question with multiple choices, completing a table, filling gaps in a sentence, writing or typing a sentence or paragraph, writing steps in an arithmetic operation, drawing an explanatory shape, or drawing a diagram.
- Answering questions (self-assessment questions) included at the end of every lesson until the student is able to evaluate himself and the extent of his progress, or get acquainted with the level of his progress in learning and the degree of achieving the objectives of learning.
- Entrusting students with assignments, such as making projects, studying a case, or making abstracts.
- Thinking and speculating about what they read and perform during activities.
- Reading a piece of text, watching a video, or listening to a tape concerning the educational objectives.
- Participating in group interviews or discussions with other students through synchronous and asynchronous communication tools.
- Executing an action or experiment concerning the educational objectives and registering the results in an individual or collective form.
- Searching for information about certain subjects on the internet or the library and writing a report about them.
- Developing a suggestion pliable to be executed in relation to the solution, and learning the solution to an educational problem.
- Solving questions and exercises, thinking and speculating, solving and investigating problems.

- Activities of simulation and playing roles.

Rowntree (1994) assures that the most successful implementation of learning operation depends on integration between a variety of activities, and it does not need to concentrate only on one type of activity. So, we have to use all available means and tools and employ them to perform activities of varied nature. Variation in activities may include watching videos and making some exercises after watching them, or through participation in discussions, either classroom discussion or through the internet on subjects related to the educational objectives of the course being followed by the student, or else through a variety of other activities. They have great benefit for the student's understanding of the content of the course. This is what Glasser (as cited in Alsayed, 2005) deduced, that the individual grasps 10% of what he reads, 20% of what he hears, 30% of what he sees, 50% of what he sees and hears at the same time, 70% of what he discusses with others, 80% of what he experiences, and 95% of what he teaches to others.

Alrabiei (2004) also considers activities arising from the type of questions and exercises introduced in a text based on the lively and basic elements at the time of designing and writing distance learning materials, because they work to share with students meaningfully the educational content, and activate their thinking without which they may be deprived of a benefit enjoyed by students in the traditional learning method. And both Martin and Bramble (1996) are convinced that students prefer the learning operation that depends on interaction between the instructor and students, or among the students themselves, with the appropriate educational means; that is, through introducing questions, discussion and participation when communicating the educational content instead of listening only to a lecture.

Darwazeh (2005) discusses the importance of educational questions of such type in the educational process, for these questions are considered as educational cognitive means, which work to activate information in the student's mind, feed it back, and benefit from it in an effective way. Moreover, the importance of this type of activities is to concentrate on facts and important concepts in the educational course that help the student achieve the objectives of the lesson and increase the level of interaction. Using a variety of questions also assists in summarising the subject into a number of logical unforgettable points, so that the student can

remember them and retrieve them at the appropriate time or educational situation. Using a variety of educational questions can also measure different educational objectives, develop the mental processes which start from the simple level to the more complicated ones. Due to the importance of questions in the operation of learning and education, questions are considered from the fundamentals of the educational operation, which enriches the learning operation and increases the student's motivation to learn and makes information less exposed to being forgotten.

In fact, success in role activities and performance by students does not depend only on the variety of activities, but is supposed to inform students of the purpose and aim of the performance. This is guaranteed through the availability of clear instructions on how to perform it, as well as a clear time-period needed to perform it, avoiding any ambiguous activities, which are written in general and choosing activities which suit the character of the students (Malik, 2000). There is also the necessity of connecting the activities with the outcomes of learning and providing support and enough educational resources, which assist them in performing activities and providing feedback on those activities. That is, they are carried out with the purpose of assisting students personally and building on their experience (Abdulhadi, 2009).

3.5.4 Feedback on Activities in the Blended Learning Environment

There is an important issue related to these activities which is feedback. And the importance of activities will not be completed unless there is feedback (Commonwealth of learning, 2005). These activities cannot achieve all the objectives that were laid out for them, unless they are followed by feedback. Gang (as cited in Darwazeh, 2005) finds that feedback has a great effect on improving and motivating the learning operation, because of its effective role in keeping the subject in the student's mind in a correct educational way. In this, feedback is considered one of the basic supports in the educational operation, for by it the learning operation completes itself. So, it is necessary to relay feedback to the student about his performance, for performance will not improve unless the student knows the result from what he learns, whether it was right or wrong, and what are the mistakes to be avoided in the future.

Tuckman (as cited in Darwazeh, 2005) finds that the concept of feedback does not mean providing the student only with the result from his answers, or whether it was right or wrong, but exceeds that, and the operation needs more explanation from the instructor, because the student learns from the feedback and can then evaluate himself. So, the instructor has to explain things to the student and teach by means of the feedback. That is, through informing the student about the extent of the correctness (or wrongness) of his answer, why it was wrong or correct, and giving him the appropriate information to assist him during the learning operation.

Therefore, Al-Qutami (2000) regard activities as one of the most important educational sources in the learning operation, because they assist the student to evaluate and improve his performance; that is, through providing him with information about his performance and giving him recommendation(s) for improving his performance, strengthening him to maintain such a good performance.

And in the framework of the importance of feedback in the learning operation, a study done by Sonak, Suen, Zappe, and Hunter (2002) about the effectiveness of feedback through the internet showed that there is a direct positive relationship between the amount of time used by high school students to get feedback directly via the internet and their academic performance. Also, in a case study discussing the effect of specifying the objectives and feedback on self-organizing and success in the environment of distance learning, Lorraine (1999) deduced that the feedback exerted to assist students in learning and implementing self-learning strategies assisted them in their success with the online learning courses.

Another study was done by Nguyen, Hsieh and Allen (2006) about the effect of learning based on assignments and exercises accompanied by feedback and evaluation through the internet on improving the trends of learning in mathematics with students at the intermediate secondary level. The study compared between the achievement trend of students who used evaluation with online acting practice and students who used evaluation and practice in a traditional way. And the results showed that opportunities of training and practicing on the computer and receiving feedback and the total of grades instantly had helped students in solving matters of mathematics, and gained cognition that they can be more intelligent in solving matters. The instant feedback worked in assisting them to better overcome difficulties in solving

matters of the subject compared to the traditional evaluation. Moreover, the online evaluation and practice worked to assist students in maintaining a high level of motivation in learning and solving the mathematical matters with the help of modern technology.

The study by Darwazeh (2005) pointed out that feedback is generally divided into:

1. **Informational feedback:** through which the student is informed about the correctness of his answer, whether it was correct or wrong, without providing him with any explanatory information.
2. **Simple feedback:** through which the student is informed about the correctness of his answer, whether it was correct or wrong, and correcting the wrong answer directly, in case the answer was wrong.
3. **Explanatory feedback:** in which the student is informed about the correctness of his answer, whether it was correct or wrong, and providing him with information for each case of correct or wrong answer, why it was correct or wrong. That is, the instructor provides the student with explanations about his answer, regardless of whether it was correct or wrong.

Barnette (2005) showed that in terms of feedback and its characteristic traits in distance learning, it has to be explanatory and not informational or simple. In addition, it should be positive, supportive, constructive, instructive, and continuous. Feedback does not aim only at informing the student that his answer was correct or wrong, because the student learns through feedback. So, the student should be informed as to why his answer was correct, and it should be supported by more information. It is preferred that the correcting operation should be administered at the time of making the mistake, providing him with information that can assist him with his progress, and directing him towards more learning sources because of the role they have in activating and supporting the learning operation and increasing the student's learning motivation.

It has to be indicated that the feedback depends on the media technology of the computer which is characterised in numerous traits, some of which provide the student with what he wished for through instantaneous and quick feedback and supporting him at any anytime. In addition to these traits, the internet can add more traits and make the feedback more effective

through various forms and different styles, as a result of having multiple ways and sources, through which the student gets the desired feedback. That is, this happens by saving different links of various available sites on the internet, including subjects, pictures or films to provide him with more information, or perhaps getting the feedback from numerous sources such as instructors, specialists and other students too, that is, through means of communication that is both synchronous and asynchronous, and which plays a key role in creating an interactive educational environment (Abdul Hamid, 2005).

3.6 Interaction in Blended Learning and online learning

With the boom of the internet and its development and the variety of online tools available, the concern for interaction has increased as far as blended and online learning is concerned, especially after the availability of a variety of interactive communication means and tools due to the key role of interaction in ensuring a high level of academic achievement in particular, and improving education outcomes in general (Alqahtani, 2011).

Wagner (1994) defines interaction as mutual happenings that require two objects and two actions. While Moore and Kearsley (2005) define interaction as an exchange of information, ideas and opinions between students and instructors. Of these interactions, the interaction between the student and the content is crucial.

Depending on Wagner's definition of interaction, Robertson (2002) described interaction in an educational context as characterized by four attributes. First of all, interaction must include a happening. Secondly, this happening should be mutual. Thirdly, this interaction must involve the participants in a purposed cognitive activity. Fourthly, this interaction must be linked to the learning outcomes.

Interaction was and still one of the most stirring concepts of discussion in the field of distance learning via the internet and instructional design (Wagner, 1994). It could be viewed as a specifying factor of the quality of learning (Anderson, 2003; Wagner, 1997). Interaction, as Sims (1999) indicates, serves numerous occupations in the educational operation. These occupations are to allow for opportunities to control the learner, making it easy for adaptation with the programme and providing different forms of participation and communication, as well

as sharing in developing meaningful learning. Garrison (1989) adds that dialogue and discussion are necessary for learning, because these forms of two-way communication allow students to negotiate and build personal knowledge, and engage in critical analysis. Garrison and Shell continue further when they define all forms of education as interactions between the content, learners, and instructors (as cited in Anderson, 2003).

Some studies discussed the perceptions of the educational operation parties over the importance of interaction in blended learning and online learning. And some others discussed the importance of interaction with other factors of learning such as learner's motivation, participation, satisfaction, and achievement. This will be discussed in the following part.

3.6.1 Importance of interaction in blended learning and online learning

Monson (2002) made a study on the importance of interaction in online learning, aimed at ascertaining students' and instructors' perceptions about the importance of interaction in online learning. Based on 265 university students and 19 professors at a private university in the western part of the United States, Monson deduced, through a questionnaire of interaction which was implemented through the internet, that both students and instructors look at the interaction between them and among the students themselves as important factors in online learning. The results also pointed out that students consider monitoring others' interaction as important for the success of online learning. In addition to that, Monson found that gender, former educational level, and previous experience in using the internet are correlated to the students' view over the importance of interaction via the internet. Meanwhile, the studying subject did not have any influence on this view.

And in another study made on 287 students at Yarmouk University, a questionnaire was used which consisted of 14 statements that talked about students' perceptions of online courses (Jiang and Ting, 1999). This study showed that whenever the design of the course was built on interaction, students were more convinced that they had learned something. The results also indicated that students' interaction with the instructor and discussion through the internet played an important role in raising the academic achievement of students.

Su et al. (2005) made a case study, aimed at determining how instructors and students view the importance of interaction through the internet, and the educational technologies which support these interactions. The study was done in a Master's degree programme in business administration through the internet at the University of Mid-Western, United States, where 26 members of the university teaching staff participated in the interview, and 10 of the second year students, registered in the Master's degree programme in business administration. The results of the study pointed out that instructors view interaction as an important part of learning in the online learning environments. Students differed in their preference for more interactions in courses taught through the internet. The researchers deduced that the difference in preferences may be related to the individual differences in the personalities of learners and their way of learning. And it may be ascribed to the fact that these students were working in jobs at the time of following the course through the internet, and so did not have enough time to participate in discussions to a great extent. And 94% of the questionnaire's responses clarified that interaction with other students and instructors created a meaningful learning experience, and they viewed it as an effective means of learning. The study also showed that instructors tend to use technicalities and educational activities, or those which depend on practices of traditional classes. As to instructors looking for more developed technicalities and using technology in teaching, results showed that instructors differ a great deal in their usage of these new methods.

Interaction has importance in blended learning and online learning, not only because people view it as important, but because it is directly connected with the learner's participation and motivation during the learning operation. As Squeer (as cited in Anglin, 1995) indicated, the learner participates cognitively, physically and sentimentally in the programme which will connect the learner with the programme, and this is the necessary conditions for motivation. From the other side, the decrease of interaction in online courses leads mostly to the learner feeling secluded (Kraut, 1998; Mclssac et al., 1999), and this feeling normally refers to a decrease in interaction (Miltiadou and McIssac, 2000). This relates to Ulmer (1994) who found that improving interaction in a course has led to a rise in the rate of learners continuing to follow the acting courses on sound and video from 20% to 75%.

And from studies done on the importance of interaction in the educational operation, the one by Kitchen and McDougal (1999) about online participative learning is worth pointing out. The

study was aimed at finding out the perceptions of post-graduate students over the educational value of their participative learning using the internet. It was also aimed at determining the factors that govern the visualizations of students towards the quality of their experiments in participative learning using the acting learning environment on the internet. The study was made on 26 post-graduate students studying online at a virtual university located in Canada (Simon Fraser University). And after implementing a questionnaire to specify the general factors concerned with student's satisfaction on their experience with participative work through the internet, It was pointed out that the student's participation (together with his colleagues) in acquiring knowledge through the different online activities of the course is considered one of the most important factors that led to increase in the student's satisfaction level. Also, the study found that generally students of the course were positive and effective in terms of using the internet to support their participatory work in small groups.

Bullen (1998) did a qualitative study about participation and critical thinking in distance learning. It was aimed at specifying if students were effective participants, building on the participation of the other, and thinking in a critical way about the subjects of discussion, as well as specifying the factors that affect the student's level of participation and critical thinking. The researcher organised interviews with 13 students and instructors in the course of holding conferences through the computer (distance learning course). The results showed that, whenever the course was interactive, students' participation was more active and in terms of critical thinking, more profound. And the researcher concluded that the interactive nature of a course has a positive relationship with the motivation of the learner and his participation in and following of the course.

Wagner (as cited in Bonk and Graham, 2006) is convinced that interaction should not be viewed as a theoretical concept, but it must be dealt with as a strategic variable, in which instructional designs are used by means of technology to achieve the desired objectives. And she did clarify the importance of interaction by means of a number of points that can be served by interaction:

- **Interaction for participation:** interaction provides ways for the learner to participate in the educational operation.

- **Interaction for communication:** encourages information participation.
- **Interaction for feedback:** assists learners to evaluate themselves.
- **Interaction to deepen knowledge:** deepens the student's understanding of the subject by providing further explanations.
- **Interaction towards the student's self-governing:** assists the learner to manage the sequence of the content, and time spent on assignments, etc.
- **Interaction for motivation:** encourages learner's curiosity, invention, and critical thinking.
- **Interaction for negotiation:** assists the learner to reach an agreement or harmonize opinions.
- **Interaction to build a team:** prepares a dynamic collective work environment to support the objectives of the team.
- **Interaction for exploration:** pushes students to be inventors of new ideas through the exchange of ideas and points of view.
- **Interaction for reconnoitering:** provides ways to specify the extent and depth of a new idea.
- **Interaction for explanation:** explain concepts which were misunderstood in a better way.

From previous studies, it was generally made clear that students and instructors view interaction as an important factor in online learning, and interaction receives appreciation from students and instructors. If people view a thing as important, they would not have hesitated in spending their time and energy on it.

3.6.2 Types of Interactions

To complete the activities of learning by students in blended learning and online learning, learners should participate in variant types of interactions. Learners are in need of interaction with the home page to access the subjects and content of the course on the internet, or through the virtual or personal learning environment. The home page should make this easy for learners. Learners should also interact with the content to acquire the necessary information that constitutes the knowledge base. In addition, the learner should interact with other learners, and

between learner and instructor, between learner and experts for cooperation, participation and to share the knowledge, thereby forming social networks.

The classification by which citation was done in a lot of studies on distance learning using the internet is the one introduced by Moore (1989). He laid out three main types of interaction, which are: student's interaction with the instructor, student's interaction with his colleagues, and student's interaction with the content. And there are other types of interactions such as the student's interaction with the interface (Hillman et al., 1994), student's interaction with himself (Soo and Bonk, 1998), as well as learner-vicarious interaction (Sutton, 2001). In the following, some of these types will be discussed in some detail.

Learner–Instructor Interaction

Interaction happens between the student and the instructor when the instructor communicates with the student or with a group of students. For the instructor mostly plays the role of the expert and simplifier through offering information and feedback, or introducing instructions for the students. This type of interaction is considered necessary by many instructors, and desired by students (Moore, 1989). Many experimental studies indicate that students view this type of interaction as the most important in distance and online learning (Monson, 2002). In online learning, this type of interaction became more direct and instant due to the rapid development of technical communication and information. As a result, students who study in online programmes feel that they had got more interaction, which they would not have got in an environment of traditional learning (Westbrook, 1999). But for Jonassen et al. (1995), the two-way asynchronous communication offers not only better contact between the student and the instructor, but more importantly enables students to build social construction of knowledge among them.

Learner-Learner Interaction

This type of interaction happens between a student and his fellow students. He interacts with them individually or as a group, with or without the availability of an instructor (Moore, 1989). Through this interaction, students can exchange ideas and cooperate on duties or assignments, view subjects from numerous and different angles, and they can also encourage and support each other. Such interaction between a student and his/her colleagues is the second form of interaction which constitutes a new dimension for instructors in distance and online learning. Many studies

have shown that this type of interaction is a valuable experience and a source of learning for students (Bull, Kimball, and Stansberry, 1988; Vrasidas and McIssac, 1999). And there is a lot of experimental evidence to indicate that students prefer to use this type of interaction following this method (Grooms, 2000; King and Doerfert, 1996). Vrasides and McIssac (1999) indicate that cooperative learning is like collective activities, which is important for an easy interaction between the student and his colleagues in the online learning process. And from the key studies in this regard, there is a research Meta-analysis done by Lou et al. (2001) which is worth mentioning. It collected experimental studies that discussed learning in small groups and have them compared to individual learning using computer and internet technology. In this study, results obtained by individuals and from performance in collective duties were measured using instruments prepared by the instructors. The results indicated that social context plays an important role in students' learning using computer and internet technology. And generally speaking, learning within a small group using computer and internet technology had a better impact on the students' academic achievement.

Moreover, social constructivism which is origins attributed to Lev Vygotsky (1896-1934), emphasised that learners construct knowledge collaboratively through social interactions as in discussion between learners and combined exploration of content and concepts in order to enhance and expand their knowledge and understanding (Kuit and Fell, 2011). And to apply these key principles of social constructivism, the use of online communication tools is critical to creating interactive social online environments that allow the learner to be active, engaged with others and actively construct his/her own new understanding and knowledge through social interaction of discussion and cooperative activities with other learners, instead of passively receiving knowledge from others such as the traditional teacher. These online tools can be provided through tools such as VLEs or PLEs.

Learner–Content Interaction

Moore (1989) defines the student's interaction with the content as an intellectual interaction operation with the content, of which there are result-variations in the student's understanding, trends, or the cognitive structure of his mind. Contemporary technology had introduced the content in numerous forms including printed matters, electronic pages, and numerous means on

the screen of the computer. And in this context, Westbrook (1999) indicated that students studying in online courses tend to interact with the content to a large extent.

This interaction between the student and content is a characteristic trait of basic education. Formal education is an operation intended towards learning certain content in accordance with planning beforehand and assistance of instructors. It demands from the learner to build his knowledge through an operation of adapting information personally to accord with previous cognitive structures. And interacting with the content is what produces changes in students' understanding, which we sometimes call a change in trends. And the content which we need for this operation in blended learning (or online learning) is being designed and introduced by designers in order to support and help every student interact with the content and transform it into the kind of knowledge that can bring about change in his behaviour.

The interaction between the student and the content was always a key element of formal education, even if it were in an office study form or revising school books in traditional education. Blended learning and online learning support this type of interaction, and offer a number of new opportunities that help create interactive environments through the VLE, PLE, electronic lessons, even while developing an interactive content response to students' behaviour and characteristics.

Interaction between the student and the interface

Viewing the nature of technology employed in blended learning (or online learning for that matter), the interaction between the student and the interface represents an important type of interaction. And as Hillman et al. (1994) indicated, this type of interaction happens between the student and communication means and tools, employed during the operation of learning. This is considered the student's entrance to the environment of learning, and it is the thing that enables him to benefit from the content of learning. But given its importance, it may be one of the most difficult types of interaction and perhaps the most challenging due to which, people are unaccustomed to it, certainly from the standpoint of traditional education. It demands an effort on the part of the educational designer until the design of the interface becomes attractive for the students (Barnes & Lowery, 1998; Marshall, 1999). From the other side, improving interaction

between the student and the interface demands that learners and instructors possess the necessary skills to handle modern technology (Harmon & Jones, 2000; Ross, 1996).

The learner's self-interaction

Soo & Bonk (1998) define the learner's self-interaction in terms of the learner's speculation and contemplation of the content during the learning operation, as well as his new understanding. They also indicate that the learner's self-interaction assures the importance of talking to oneself (soliloquy) during preoccupation with learning the educational content. So, the process of thinking and blending on the part of the learner is really an action of the student's self-interaction operation. Many educators have pointed to the importance of speculation as a way to develop independent thinking, self-control, and self-organization (Soo & Bonk, 1998; Wagner, 1997).

Learner-vicarious interaction

Learner-vicarious interaction happens when one of the students notices a direct interaction between two other students (or more), or between another student with the instructor, and the interaction here is not direct (Sutton, 2001). The supposition here is that students can learn a lot by observing or watching others interacting with each other in different activities. Students who benefit from this type of interaction are the ones who do not wish to enter into any direct interaction for different reasons (Robertson, 2002), even though they can get answers to their questions simply by observing, listening or watching others interacting as in reading discussions of other students in the VLE or PLE.

3.6.3 Educational activities and their role in supporting interaction in blended learning

The constructivists suppose that the learner produces knowledge through his interactions with the environment, for people start to build meanings and understand their world through interaction with their surroundings. And social constructivists believe that learning happens through social discussion and common experience (Jonassen et al., 1995). From this perspective, interaction represents a vital issue for learners with respect to building knowledge internally. Meanwhile, some people display doubt that online learning can offer a level of interaction similar to that practised by learners in traditional learning (Smith, 1996). Others believe that

courses taught online may have the same degree of interaction or even better than in traditional courses. For example, Miller and Webster (1997) found in their study that there is no big difference in the amount of interaction which takes place among students in traditional courses compared to those in online courses.

A number of researchers have concluded that online courses can be more interactive than traditional courses, if only online courses include a suitable instructional design, offering quick and personal feedback so as to meet the individual learner's needs (Hirumi & Bermudez, 1996; Horn, 1994). Garrison contended (as cited in Keegan, 1993) that we cannot expect any important changes when the same old activities are used with technology, albeit quicker or a little bit easier; the activities have to be changed. In addition, King and Doerfert (1996) both indicated that interaction is not just a phenomenon that happens, but a part that should be intended and included in the instructional design of the course. The instructor in the blended learning or online course should be concerned about providing opportunities for interaction, and focusing on activities that lead to interaction between the students in an online course. Therefore, the main question in this context is: what are the educational activities that can support interaction in learning through the internet or in the blended learning environment?

Educationists employ many types of activities to support interaction and improve operations in online courses. For example, Branon and Essex (2001) indicated that virtual office hours may assist in supporting interaction between the student and the instructor, as well as other types of interaction in online courses. In addition, Peters (2000) pointed to the importance of working as a team during interactions between the student and his colleagues. And likewise, Sutton (2001) encouraged students to read others' discussions to learn through learner-vicarious interaction. And Kerka (1996) recommended students to answer a questionnaire which would enable them to examine their views in a personal form concerning the content, and so increase the student's interaction with himself (self-interaction).

In spite of all that has been written about the importance of supporting interaction in online courses, the field still lacks specific instructions on how to support interaction in blended and online learning, or to exclude the followed method in preparing learning activities for open learning purposes (Freeman, 2005). And in spite of the lack of an integrated view on how to

support interaction in blended and online learning, the literature proposes a great number of activities (in the next part, educational activities will be looked at). They are being implemented to support interaction in accordance with the four types of interaction (interaction between the student and instructor, interaction between the student and his colleagues, interaction between the student and content, and self-interaction).

Supporting interaction using the educational activities between the student and instructor

Interaction between the student and instructor is a multi-dimensional relationship that is dependent on a number of variables such as the level of social presence, punctuality and quickness of feedback, and depth of discussion (Berge, 2002; Gunawardena, 1995; Muirhead, 2005; Swan, 2001). And due to the geographic dimension relating to the instructor and the learner in an environment of online or distance learning courses, it has become important for the instructor to employ strategies that can support the social presence, quality of feedback, and beneficial conversations. And as Muirhead (2005) indicated, instructors and designers need to set up a structure for the online courses which can support interactions and develop skills of independent learning. And depending on dozens of styles suggested by many educationists to support the interaction between the student and the instructor, instructors can employ from a distance the following educational activities (McDonald & Gibson, 1998; Branon & Essex, 2001; Hirumi, 2002; Stewart et al., 2004; Eisley, 1995; Peters, 2000):

- Employing synchronous lectures that allow the students to ask questions and get answers at the same time.
- Employing asynchronous lectures that allow the students to watch at any time.
- Laying out online office hours for synchronous individual consultation.
- Participation by the instructor in discussions with the students of the course.
- Making sure of the student’s regular progress and to recognize the level of each student.
- Encouraging learners to further explore by offering questions.
- Making the quality and quantity of the student’s participation a part of the programme's total score.

- Offering instant feedback to learners.
- Offering opportunities for informal social communication between the student and the instructor.
- Inviting guest-speakers from among experts in the educational field to communicate and interact with students.
- Offering repeated opportunities for evaluation.

Supporting interaction using educational activities between the student and his colleagues

Many studies have focused on educational activities that support interaction between the student and his colleagues (Cantrell, 2002; Godinho and Shrimpton, 2002; Harris, 1994; Hirumi, 2002; Peters, 2000; Galambos, 2001; Muirhead, 2005) which may be summarised as follows:

- Forming small groups for asynchronous discussions, and each group may comprise from three to six students.
- Encouraging asynchronous discussions among the whole semester class (a big group).
- Offering opportunities for instant synchronous chat among students.
- Entrusting students with participatory projects.
- Specifying students' roles in the collective work.
- Forming groups for debate.
- Making students evaluate each other's work and give feedback to their colleagues.
- Allowing learners to exchange experience and views.
- Evaluating discussions according to their quality and quantity.

Supporting interactions using the educational activities between the student and the content

Depending on the styles suggested by Almousa (2005) and Rowntree (1994), educational activities were assessed in terms of supporting interactions between the student and content, as laid out in the following points:

- Providing the learner with a file that includes instructions on how to run the programme used in the course, instructions that fit the level and experience of the user and use explanatory pictures, clearly showing how to deal with the programme in the course.
- Learner taking part in the educational choices of the programme used in the course, by being given the opportunity to specify or choose the educational activities accompanying the programme that is most appropriate for him. The importance of this approach is that it transfers decision making from the programme to the learner, and so he becomes the governor and dominator during procedures and incidents.
- Topics and units of the workbook must be in order and arranged in the appropriate sequence, with suitable usage of activities and examples.
- The contents of the course should have an exciting and attractive design.
- The dialect by which the students are addressed must be agreeable and the way of addressing them ought to be conversational and direct.
- Offering detailed and clear instructions of what the student must do.
- It is a must to remind students through the content of the educational programme of information they had previously learned, what they will learn in the present course, and the objectives of studying the course.
- Giving feedback directly to the student(s) concerned.
- Offering a list showing the contents of subjects and tools, and the purpose of studying each subject in the course, or using any tool. It is also recommended that such lists must be in front of the user all the time in the online learning environment, just in case they may be needed by the student when trying to use any tool in the programme.
- Writing titles that clearly express the content.
- Demarcation of the user's position inside the programme, that is, by offering an indicator that clearly sets out what the learner has studied and what still remains for him in the programme. It will also allow him to become aware of the extent of his progress through questions, activities, exercises, and examination.

- Making available the possibility for getting out of the procedures of the programme at any time.
- The content of the course must be elastic, pliable to be amended to what suits the learners' needs.

Supporting self-interaction (between the student and him/herself) using educational activities

Studies that have included educational activities to support self-interaction (Sutton, 2001; Hirumi, 2002; Peters, 2000) may be summarised in the following points:

- Encouraging learners to reflect on and think about what they have learned.
- Demanding that learners read their colleagues' discussions.
- Demanding that learners prepare questions on the subject or for the next lesson.
- Offering opportunities to solve problems and to answer the academic questions individually.
- Encouraging students to summarize the main points of the discussions.
- Demanding that learners write up their opinion on the academic content.

Conclusion

From a review of the related literature, witnesses and evidence on the effectiveness of blended learning when used in the educational process were laid out, as well as how blended learning can improve the learning outcomes. But such evidence were from other countries and from different learning environments.

Most of the main points and sections in this chapter are directly related to the aim and research questions of this study. For example, the first main section that I dealt with in the literature review was on VLE. And in this study, I used the VLE of Blackboard for my first experimental group. Also, the second key section in the literature review was on PLE, and I used the PLE of Facebook in my second experimental group in this study. The third main point in the literature review was blended learning in terms of its concepts, why it is important, and so on. Blended learning is the heart of my study, because the overall aim of this study has been to identify the effect of using blended learning. The other sections in the literature review include the ADDIE instructional design model. Moreover, the content of the General Teaching Method Course was based on the five stages of the ADDIE instructional design model, comprising five phases: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. Also, the other sections in the literature review include Motivation, Interaction and Educational Activities in terms of blended learning. And these are important elements for the blended learning environment. So, this chapter is directly engaged with the aim and hypotheses of this study.

And the question at the heart of the current study is: does this blended learning have an impact on the students' level of achievement and satisfaction in the Kuwaiti educational environment?

No doubt, what could be affecting students in the Kuwaiti education system will have an impact on the results of this current study.

There is no doubt that the educational environment and system vary from country to country. There is also no doubt that the education system has an effect on the learning environments, students' skills and their culture of learning. The current study sample (96 female students) comprises student teachers who have graduated from public schools under the Ministry of Education in Kuwait. And when these graduate from the College of Basic Education, they return to school, but this time as teachers. And there is no doubt that they have been affected by the education system in Kuwait through their studies from primary to high school level. And this is what invited us to understand more deeply the reality (state) of the educational system in

Kuwait and its inherent problems as we looked at in the previous chapter. What could be affecting these students in the Kuwaiti education system will have an impact on the results of this current study.

Chapter 4: Research Methodology

4.1 Research Method

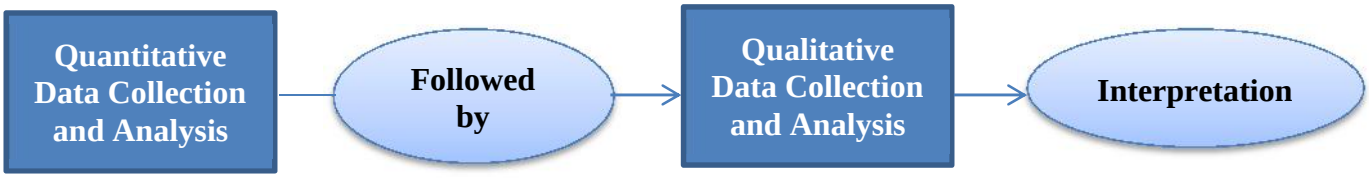
This study used a mixed method research approach because it is more appropriate for addressing the key questions of the study, as well as determining its nature and objectives.

John Creswell defined the mixed method research as an approach to professional research that combines the collection and analysis of quantitative and qualitative data (Creswell, 2009). And in his book (Designing and Conducting Mixed Method Research), Creswell mentioned examples of mixed method studies. One of these examples is when the researcher collects data using quantitative experimental procedures and follows it up with interviews with a few individuals who participated in the experiment to help explain their scores on the experimental outcomes (Creswell and Clark, 2011). And this is exactly what happened in this research, where the researcher used the experimental approach (with quasi-experimental design) to collect the quantitative data, then used the interviews to collect the qualitative data.

Some people may confuse multi-method research with mixed-method research. Multi-method research occurs when the researcher uses both quantitative and qualitative data but treats them as two separate datasets without integration between them. But in the mixed method research, the researcher uses the results of both data (quantitative and qualitative) within a single programme of study, integrating and comparing them to see if there is any relationship between the quantitative and qualitative data.

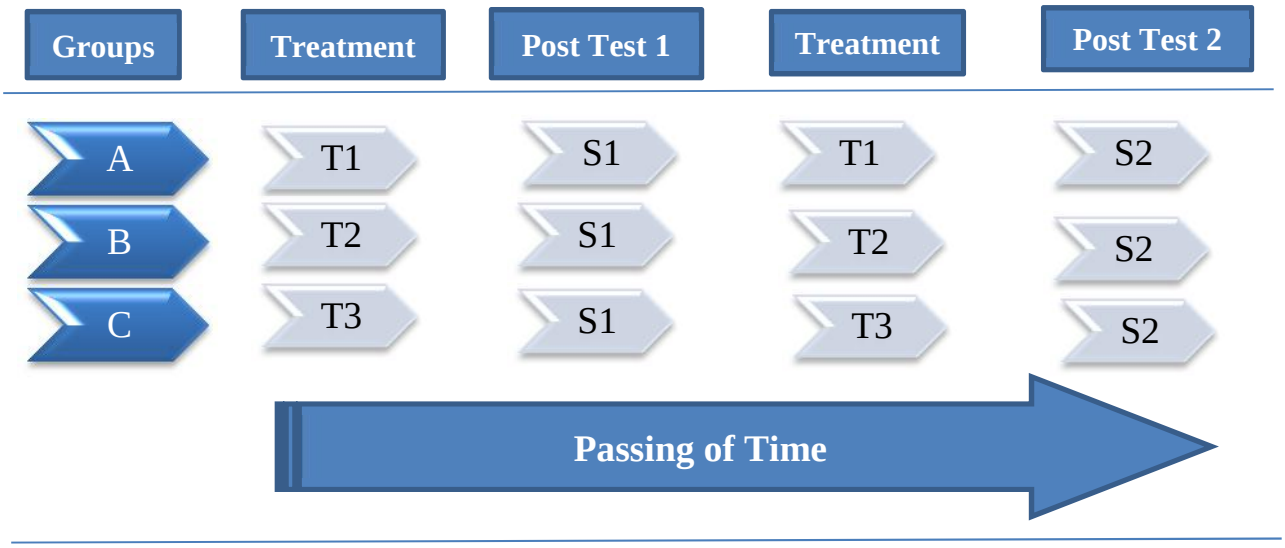
The mixed method approach design in this research is called ***The Explanatory Sequential Design***. This design starts with the collection and analysis of quantitative data, which has priority for addressing the study's questions, and then follows it up with the collection and analysis of qualitative data to help explain the quantitative results (Creswell and Clark, 2011).

Figure (5): The Explanatory Sequential Design



In terms of the quantitative data collection, the researcher used the quasi-experimental design because the pre-selection and randomisation of students in each group is very difficult if not impossible with the system at the College of Basic Education. So, one branch of the course (304) is chosen to be the first experimental group, and the other branch as the second experimental group, while the third branch is the control group. ***The design of the control group with a post-test*** was chosen as one type of the quasi-experimental design, against which the experimental and control groups are measured and compared after the treatment, as shown in the following diagram:

Figure (6): Design of the control group with a post-test



Groups (A) and (B) are randomly chosen experimental groups, and group (C) is the control group. Treatment (T1) is the teaching method of blended learning, which was used with the first experimental group (A) using VLE of Blackboard in addition to face-to-face learning, while the second experimental group (B) used PLE of Facebook in addition to face-to-face learning (T2). Traditional Treatment (T3) is the teaching method for face-to-face

learning alone, which was used with the control group (C). Post test 1 (S1), which is the mid-term exam of the course (304), was applied to all groups after 7 weeks of treatment, and post test 2 (S2), which is the final and practical exams of the course (304), together with the students' satisfaction questionnaire, were applied to all groups after 15 weeks of treatment (i.e. at the end of the course) to determine the effect of using blended learning on academic achievement and students' level of satisfaction with the course (304).

4.2 Study Variables

4.2.1 Independent Variables

The teaching method used was either the blended learning method for the experimental groups or the face-to-face learning method for the control group.

4.2.2 Dependent variables

1. Academic achievements, as assessed in the **mid-term**, **final** and **practical exams** of the course (304).
2. Satisfaction about the course was assessed by means of the questionnaire, giving a total mark and 3 sub-marks, all referring to the students' satisfaction about the **teaching method** of the course, **the content of the course** and the **instructor's support** for the course.

4.2.3 Control Variables

1. Students' previous academic records (GPA) for both College and High School.
2. Students' use of computer and the internet.
3. Students' Academic Disciplines:
    - English
    - Art
    - Physical Education
    - Music

4. Students' marriage status.

5. The module (304) teacher: teaching the 3 groups was given by the researcher.

4.3 Study Population

The targeted population for the study is all the female students at the College of Basic Education, Kuwait, who have yet to follow the General Teaching Method Course (304). The actual population includes all female students registered for studying this course during the second term of the academic year (2009-2010).

4.4 Study Sample

The sample includes 96 female student teachers whose age ranged between 19 and 22 years and are registered in the three branches of the General Teaching Method Course (304) at the College of Basic Education in Kuwait. The three branches (groups) registered to follow the course (304) in the second semester of the academic year 2010 have been chosen for the researcher by the Department of Curriculum and Instruction at the College of Basic Education. Then randomly, the researcher chose one group as the first experimental group (39 students) who followed the course through blended learning using VLE through Blackboard in addition to face-to-face learning. A second group was chosen as a second experimental group (31 students), who followed the course through blended learning using PLE through Facebook in addition to face-to-face learning, and then a third group was chosen as the control group (26 students) who followed the course through face-to-face learning alone.

4.5 Tools of Study

4.5.1 Mid-term and final theory tests of the (304) course

Among the policies of the Department of Curriculum and Instruction at the College of Basic Education is that the achievement tests in the department's compulsory courses are to be prepared by a specialised committee (team) consisting of a small group of academics from

the same department. And the General Teaching Method Course (304) is one of these compulsory courses, so that every year the specialised committee has to design and prepare the achievement tests in this course (304). And of course, one of the most important roles that the committee has is to check the validity and reliability of the achievement tests they prepare. So they normally would have already checked the following:

- To what extent is each question suitable and relative to the goals of the course?
- To what extent is each question suitable and relative to the objectives of the course units?
- Ensuring clarity for each question linguistically.
- The correctness of the scientific content of the questions.
- Making sure that each question measures what it purports to measure.

Both achievement tests (Mid-term and Final) have been prepared on the basis of the units' objectives and items as featured in a book provided by the Department of Curriculum and Instruction known as the book of the General Teaching Methods.

The mid-term test included three types of questions; the first was multiple choice (9 questions), the second was true or false (9 questions), and the third was matching (7 questions), hence a total of 25 questions.

The final test included four types of questions; the first was short answer questions (20 questions concerned writing down the correct scientific term), the second was multiple choice (20 questions), the third was true or false (22 questions), and the fourth was matching (18 questions), hence a total of 80 questions.

4.5.2 Practical exam of course (304)

The Practical exam is an assessment of the students' teaching ability. It tests students' ability to demonstrate a range of teaching skills in a classroom context. This Practical exam is

designed and assessed by a specialised committee (team) of the academic staff in the Department of Curriculum and Instruction at the College of Basic Education.

The committees evaluated and assessed the students' performance in the practical exam, wherein every group of students in the (304) course had two examiners from the committee of the Department of Curriculum and Instruction.

The aim of this practical exam as far as students are concerned is to apply what they have learned in the course (304) in terms of their knowledge of planning, writing behavioural objectives, and teaching to a practical classroom situation. So, every two students together (both must be in the same discipline) have to plan and deliver a lesson for 30 minutes in the classroom.

The practical exam included three parts of assessment; the first one is lesson planning (includes five lesson planning criteria), the second part is implementation of the lesson (includes seven teaching criteria), and the third part is classroom management (includes three criteria). Students are awarded a grade by the examiners for each of the assessment criteria, and the grades are: 1 = excellent, 0.5 = good, 0 = weak or not included.

4.5.3 Students' satisfaction questionnaire

- The objective was to measure the degree of satisfaction among students with regard to the General Teaching Method Course (304). The questionnaire focused on three dimensions expressing students' satisfaction with the teaching method of the course, the content of the course, and the instructor's support.
- This questionnaire was designed with help from three previous questionnaires; the first was the Student Satisfaction questionnaire (2004) that was applied to students at the University of Western Sydney, the second was the Student Satisfaction questionnaire (2005) which was applied to students of Oxford Brookes University, and a third was by Paul Ramsden (1992) which was a questionnaire about student satisfaction re study curricula.
- Suitable phrases were taken from these questionnaires even though they were rephrased and modified to suit the requirements of the current study.

- Then, the researcher submitted the questionnaire to his supervisor, Prof. Mike Watts of Brunel University and to some academic staff at the Department of Curriculum and Instruction in the College of Basic Education in Kuwait who provided him with valuable comments and suggested some amendments.
- After making the required amendments, the questionnaire consists of 30 statements spread over the three main dimensions of the questionnaire: the teaching of the course (10 statements), the content of the course (10 statements), and the instructor's support of the course (10 statements).
- After that, the researcher translated the questionnaire into Arabic because all the course (304) students are Arabs who may face difficulties with filling in the questionnaire if it was in English.
- Then, the questionnaire (Arabic version this time) was again submitted to some of the academic staff at the Curriculum and Instruction Department for their opinions regarding the translation, its suitability, clarity and correlation of each question with respect to the three questionnaire dimensions, and the correctness of the Arabic grammatical phrasing of the questions.
- After making the required amendments, the researcher asked his friend, Nawaf (English teacher and native speaker of Arabic), to again translate the questionnaire from Arabic to English without looking at the original version in English.
- Afterwards, the researcher made a comparison between the two English versions, where he found no effective change in terms of meaning between the two versions, but he consulted his supervisor who advised him to make a small amendment to three statements.
- The questionnaire is a Likert-type scale that requires the respondent to answer each statement by marking the appropriate box from among four choices: Strongly disagree – Disagree – Agree – Strongly Agree.
- The reliability of the questionnaire was verified and the results of the reliability coefficient (Cronbach's Alpha) were high as you can see in the following table:

Table (1): Cronbach's Alpha values for the dimensions of satisfaction

Dimensions of the Questionnaire	Cronbach's Alpha	N of Items
The Teaching Method	.816	10
The Content	.861	10
The Instructor's Support	.742	10
Total	.922	30

- SPSS was used to calculate the reliability coefficient (Cronbach's Alpha) regarding the three questionnaire dimensions.

4.5.4 Interviews

The aim of the interviews was to determine students' opinions and perceptions with regard to the teaching method which was used (blended learning using VLE of Blackboard for the first experimental group, blended learning using PLE of Facebook for the second experimental group, and face-to-face learning method for the control group) in the General Teaching Method Course (304).

These interviews took place after the mid-term test, final test, practical test and the satisfaction questionnaire to help explain the students' scores in these instruments.

Group interviews were used because they provide some quality controls on data collection and can focus on the most important topics and issues in the study. They are also cost-effective in terms of numbers, peer discussion and interactions. The questions and discussions of the interview were about the advantages and disadvantages of the course (304) regarding the teaching methods, the content of the course, and the instructor's support for the course. There were 9 face-to-face group interviews (3 interviews for each group) conducted for every 3-4 students together in a suitable and quiet place at the College of Basic Education. These interviews were carried out with 12 students who were randomly selected from the first experimental group (39 students in total), with 11 students (1 apologised) from the second experimental group (31 students in total), and with 9 students (3 apologised) from the control group (26 students in total). And thus, the total number of students who were interviewed in all three groups was 32. The researcher also asked the participants for permission to use a digital voice recorder during the interviews because it would be helpful for transcribing their response later.

4.6 The implementation process (procedures) of the study

- The researcher received approval letter from the Research Ethics Committee of the School of Sport and Education at Brunel University, confirming that there is no objection on ethical grounds to the current study (See Appendix 1).

- The researcher acquired a letter from his research supervisor, asking the College of Basic Education in Kuwait to allow the researcher to carry out his research at the College, and to work with and teach three groups of female students by means of the General Teaching Method Course (304) for the second semester of the academic year 2010 (see appendix 2).
- The researcher received a letter of consent from the Dean of the College of Basic Education addressed to the researcher's supervisor, confirming that the College has agreed to allow the researcher to carry out his research at the College of Basic Education (see appendix 3).
- The researcher also acquired a letter from his research supervisor addressed to the Cultural Counsellor and Head of Kuwait Cultural Office in London, seeking their permission for the researcher to carry out his research in Kuwait (see appendix 4). In reply, the researcher received a letter of consent from the Kuwait Cultural Office in London, confirming that they have agreed for the researcher to carry out his research at the College of Basic Education (see appendix 5).
- Because the researcher needs cooperation with the e-learning centre at Kuwait University for developing a space for the course (304) on the Blackboard, and for developing usernames and passwords for the students of the first experimental group, he asked therefore his supervisor to write a letter to Kuwait University seeking to facilitate this favour for the researcher (see appendix 6). In response, the researcher received a call from Kuwait University, telling him of their agreement with his supervisor's request.
- As previously explained, the three branches (groups) who were to follow the General Teaching Method Course (304) were chosen for the researcher by the Department of Curriculum and Instruction in the second semester of the academic year 2010. Then, randomly, one group was chosen (by the researcher) as the first experimental group, a

second group was chosen as the second experimental group, and a third group was chosen as the control group.

- The instructor (researcher) of the course (304) was the same for the three groups; the only difference was in the teaching method of the course.
- The researcher had a meeting with the head of the Department of Curriculum and Instruction who provided the researcher with information about the course (304), the course textbook, the overall objectives of the course, the behavioural objectives of the course learning units, and the method of assessments of the course.
- After Kuwait University had provided the researcher with an instructor account on blackboard, he started to log in so as to prepare the course (304) for the first experimental group.
- The researcher had a meeting with the administrator of the Blackboard at the E-learning centre of Kuwait University in order to add and create usernames and passwords for all students in the first experimental group.
- Sources and educational materials (books, educational links from the Internet, educational films, and PowerPoint presentations), which help achieve the educational objectives of the course (304) were collected.
- The researcher found that the course textbook provided by the Department of Curriculum and Instruction does not contain interactive activities and enough examples, so the researcher (based on the objectives of the course) prepared educational activities, illustrative examples and self-assessment questions by designing PowerPoint slides. It was presented to a group of arbitrators from the academic staff at the Department of Curriculum and Instruction and who are specialists in the General Teaching Methods course (304) for their feedback and assessment before installing them on Blackboard or uploading them onto Facebook. After that, only the first unit of the course (304) was uploaded onto the Blackboard system, and then some other arbitrators who were specialists in ICT at the College of Basic Education also provided the researcher with some comments and suggestions.
- The educational units of the course (304) were designed according to the model of instructional design (ADDIE) to be electronically converted and displayed in the Blackboard environment for the first experimental group, and in the Facebook

environment for the second experimental group. (I will talk about the instructional design of this course (304) in detail later in a separate section).

- The study was applied during the period from 28 February 2010 until 17 June 2010, i.e. for 16 weeks.
- The attendance for both first and second experimental groups was reduced by 50%, so that students of both experimental groups attended the face-to-face class once a week instead of twice a week. However, students of the control group (taught by face-to-face learning alone) attended the class twice a week.
- With the beginning of the term, an introductory programme (Induction week) was presented for each group (individually) during the first week of study and before teaching the actual course. This programme included the following:

    1. Giving the students a clear idea and a full picture of the nature of following this course (304), its objectives and all vital information which the students need in order to follow the course.

    2. The group of learning units and titles of subjects in the General Teaching Method Course were presented. There were brief ideas and simple information on each subject.

    3. There were presentations on all important dates such as exam dates, and start and finish of each learning unit of the course (304).

    4. All students were given information about the instructor of the course (researcher), in addition to his email and his office working hours.

    5. Students were given a Student Guide, which contains all students' needs, including tables of lessons titles that will be taught in the course. The guide also provided detailed explanation on how to use the tools of the Blackboard (for the first experimental group) and Facebook (for the second experimental group), giving an idea on how to use these programs in the course (304).

    6. An intensive short course – given by the researcher - on how to use Blackboard and Facebook (for the experimental groups).

- In a first meeting with students in all three groups, the researcher informed them about the research and gave them an information sheet and a consent form (see appendix 7). He also asked them to sign the form if they are happy to take part in this research.
- At the beginning of the application of the study, some data were collected from students in each group regarding age, college and high school GPA, academic disciplines, average use of computer and the internet, and marital status.
- The control group followed the course via the traditional and familiar method at the college, by attending face-to-face lectures on Tuesdays and Thursdays from 9-11 am.
- The mid-term achievement test of the course (304) was given in the seventh week of the semester (See appendix 8).
- The Practical exam of the course (304) took place in the thirteenth and fourteenth week of the semester (See appendix 9).
- The final achievement test of the course (304) and the Student Satisfaction questionnaire were done in the fifteenth week of the semester (See appendix 10).
- The groups' interview was conducted in the sixteenth week of the semester (See appendix 11 example of one groups' interview).

4.7 Challenges and difficulties I encountered

- At the beginning, I wanted to apply the study to a sample of male and female students at the College of Basic Education. However, I did not find a big enough sample of male students doing the General Teaching Method Course (304) in the second semester of the academic year 2010. So, for this reason, the sample of the study was confined to female students only, comprising three groups who followed the (304) course. On the other hand, this was interesting for me, because it made me challenge myself to think more deeply about how I can succeed with female students when using this new approach with them (blended learning approach – Facebook – Blackboard - class discussion). In Kuwait, due to its cultural context, it is often more problematic to engage young women students in change because they tend to be more conservative, and thus not readily open to change.
- The Department of Curriculum and Instruction obliged me to use the course textbook to teach the students who followed this course (304). They also asked me to make students

buy this big book with more than 400 pages as the main textbook of the course (304). But I found this book to be written in a rather traditional way, which means that I found it not to contain interactive activities and enough examples.

- Some of the classrooms do not have a data-show projector system, and so I had to buy a small one (LG projector).
- There was no access to the internet in all the classrooms where I taught! So I bought a high speed internet USB from Al-Wataniya company. This small device was easy to use on my laptop.
- I knew that some classrooms in the college do not have a data-show projector or internet. That is why I asked my supervisor, Prof. Mike Watts, to write a letter to the Dean of the College of Basic Education (see appendix 2), requesting that such facilities be made available in the classrooms for my use. Their reply to Prof. Watts' letter was positive (see appendix 3), even stating that they have no objection to my study requirements! (However, I later found out that this was not the case).
- The Department of Curriculum and Instruction did not provide me with a desk or place where I could set myself up! I really suffered from this because every instructor or lecturer needs a desk to prepare himself and review the objectives of whatever activities he needs to use in the class before the start of the lecture. Sometimes, I used my car to wait for the next lecture and sometimes I went to the library. And for the students, there were no problems with the experimental groups because my office hours were available online, but there were problems with the control group. That is why I asked a friend (one of the academic staff at the Department of the Curriculum and Instruction) to use his desk twice for two hours a week (as office hours for the control group). I also asked students in all groups at the end of each lesson (lecture) if any of them would want to ask me something or want to speak with me.
- Some students were reluctant to use Facebook for family reasons: their family thinks that if anyone creates an account on Facebook, anyone can view their information and pictures, etc. I told them that in Facebook, you can manage your privacy settings to hide your information and pictures from people you do not wish to have access to them. And they said, "We know that and we tried to convince our families that we need to use Facebook in this course for academic purposes but they just don't want to understand". In Kuwait, as in other Arab countries, there is unfortunately the community's perception of

women which is still very different from that of men. For example, in some situations, if a certain man has done something wrong, it is very easy for the community to forget it, but if a woman has done the same wrong, it is very difficult if not impossible to forget it. This perception of women still exists in some Kuwaiti families, who tend to exert more control on their women, while giving full freedom to their young men to do whatever they want.

- Some students do not use computers and the internet (they have no computer skills). Also, some of them do not have any email address. (I gave them a brief training course on using computers and creating emails).
- There was a problem with Kuwait University though – specifically the E-learning Department - which had given me space on their server to create and design the VLE Blackboard course for the first experimental group in the study. However, they blocked my username, such that I could not access this online blackboard course anymore so as to view all the information relating to the participants of the course. They explained that they have decided to block my access to the course because I have finished teaching this group and I am no longer one of the academic staff at Kuwait University. I told them that I must have access to the Blackboard course because I needed this for my research. It was then that I asked my supervisor, Mike Watts, to write a letter to them (see Appendix 11), requesting that I be allowed access to the Blackboard. I waited for about 6 months before receiving their agreement for me to have access again to my Blackboard course, but this time only for a limited period.
- I also had difficulty when I started to transcribe the interviews. I took longer to transcribe them than I had anticipated. And so, I bought a USB foot pedal for transcription which helped me greatly and facilitated the transcription. It was also very helpful in saving me much time and effort during the transcription.

4.8 Instructional Design of the General Teaching Method Course (304)

This part will deal with the process of designing blended learning for the General Teaching Methods course (304) via the five stages in the ADDIE instructional design model. The ADDIE model is a systematic instructional design model consisting of five phases: (1) Analysis, (2) Design, (3) Development, (4) Implementation, and (5) Evaluation. This model is built on the common characteristics of instructional design models, and can be used in the

design of any type of teaching or training, for both online and face-to-face learning, as well as helping to develop a common vision for the development of e-learning (Driscol, 2002).

Each stage of this ADDIE instructional design model includes a set of sub-steps that must be taken into account until the design process becomes integrated. Shelton and Saltsman (2011) and Alsaleh (2005) mentioned these steps of the ADDIE model and its sub-steps when using this model for teaching online.

In the following paragraphs, the most important steps and procedures taken by the researcher regarding the design of this course (304) in the light of these five stages will be displayed. The tasks required at each stage of the model referred to the following:

4.8.1 Analysis phase

In the analysis phase, the areas required or needed are identified, the instructional goals and objectives are established, the target audience and environment are defined, and the learner's existing knowledge and skills are identified.

At this stage, the researcher performed the following steps (tasks):

- **Course Definition:**

The General Teaching Method Course (304) is one of the academic theoretical courses that are taught at the College of Basic Education, Kuwait. The targets of this course include preparing student teachers for the teaching profession through training them in basic teaching strategies, methodologies, and skills. This is a general compulsory course (module) for all students who register at the College of Basic Education in four academic departments: English department, Physical Education department, Art department and the Music department.

The General Teaching Method Course (304) contains five main units covering the following topics: the concept of curriculum (the traditional and modern concept), the differences between them, and the importance of the modern concept of curriculum. It also addresses the educational concepts faced by the teacher during the teaching process. This is in addition to addressing the planning aspects of the teaching process, which enables the teacher to deal

with the course content. It also deals with the teaching skills necessary for the teacher during class teaching. The content of the course also offers different types of teaching methods.

- **Objectives Definition:**

All the objectives of the General Teaching Method Course (304) are approved and provided by the Department of Curriculum and Instruction at the College of Basic Education. The head of the department provided the researcher with a copy of these objectives of the course (304), and the researcher was obliged to make use of these objectives throughout the course.

Unit one: Curriculum Concept

At the end of this unit, the student will be able to:

1. Explain the concept of the curriculum.
2. Compare the traditional and modern concept of the curriculum.
3. Identify the negative aspects of the traditional curriculum.
4. Ascertain the factors that helped with the emergence of the modern concept of the curriculum.
5. Recognize the elements of the modern curriculum.

Unit Two: Some important educational concepts

At the end of this unit, the student will be able to:

1. Compare between the concept of teaching and the concept of learning.
2. Recognise the relationship between the concept of teaching and the concept of learning.
3. Recognise the various stages of the teaching process.
4. Recognise the characteristics of a successful teacher.
5. Identify the duties of the teacher.

Unit Three: Planning for teaching

At the end of this unit, the student will be able to:

1. Recognise the meaning of planning.

2. Explain the relationship between the teaching and planning.
3. Illustrate the importance of planning in terms of the teacher and students.
4. Recognise the type of planning in teaching.
5. Identify the elements of the daily lesson plan.
6. Explain what behaviour learning objectives mean.
7. Recognise the condition for behaviour objectives.
8. Give examples of correct behaviour objectives.
9. Recognize the common mistakes when writing behaviour objectives.
10. Develop a daily lesson plan in the field of his discipline.

Unit Four: Implementation of teaching

At the end of this unit, the student will be able to:

1. Explain the importance of the warm-up teaching skill at the beginning of the lesson to the class.
2. Give examples of a warm-up lesson in a variety of teaching positions.
3. Explain the importance of reinforcement.
4. Give examples of reinforcement.
5. Explain the importance of class management skill.
6. Recognise the correct methods of using the question skill.
7. Explain the meaning and purposes of evaluation.
8. Explore the difference between evaluation and measurement.
9. Explain the various types of evaluation.
10. Recognise the types of questions in the tests.

Unit Five: Various Types of Teaching Method

At the end of this unit, the student will be able to:

1. Explain what is meant by a teaching method.
2. List the various methods of teaching.
3. Define the lecture method and state its advantages and disadvantages.
4. State what discussion method is and state the advantages and disadvantages.

5. Explain the demonstration method of teaching and list the advantages and disadvantages.
6. Explain the project method of teaching and outline the advantages and disadvantages.
7. Explain the Game and Puzzles Method of teaching and list some examples.
8. Explain the problem solving method of teaching and list the advantages and disadvantages.
9. Define the Cooperative Learning Method and state the advantages and disadvantages.
10. State when and where each method may be applicable.

- **Audience Definition:**

The students include 96 female student teachers whose age ranged between 19 and 22 years and registered in three branches of the General Teaching Method Course (304) at the College of Basic Education in Kuwait. All students who must take this course (304) come from four academic departments: English, Art, Physical Education, and Music. All of them are full time students who have not previously studied using eLearning or the blended learning method in this college; they used to study using the traditional teaching method only. All of them are in their first or second year of undergraduate study at the college, and all of them live in Kuwait and not far from the college. All of them are Arab students, so their main and first language is Arabic.

- **Environment Definition:**

The current situation in the College of Basic Education in Kuwait is for the academic staff not to use the blended learning method for teaching purposes. The desired mode is to use the blended learning method of teaching at the College of Basic Education. At this stage, one of the tasks that the researcher has is taking a tour of the classroom at the College of Basic Education, where he found that not all classrooms have data show projector system and internet access. That is why he asked his supervisor, Prof. Mike Watts, to write a letter to the Dean at the College of Basic Education requesting that such facilities be made available in the classrooms that the researcher would use for teaching.

- **Delivery System:**

The decision is to use the blended learning method of teaching (using VLE of Blackboard) for the first experimental group, and PLE of Facebook for the second experimental group. In the College of Basic Education, as explained above, the students used to be taught the Face-to-Face learning method alone, so it will be very difficult for them to follow any course using purely or totally online teaching method without any meeting with the instructor inside a real classroom at the College. In addition to that, the geographical nature and the small size of the State of Kuwait do not require the use of the online teaching method alone, as there is no problem at all with distances in terms of students getting to the college. Therefore, the appropriate decision for students at the College of Basic Education is using the blended learning teaching method, which combines the advantages of the two methods of teaching (face-to-face and online learning).

4.8.2 Design Phase

This phase deals with lesson planning, activities relating to the content of the course, training courses required, selected suitable multimedia, identifying strategies of the content, identifying the aims for designing the course on VLE or PLE, and assessment criteria.

At this stage, the researcher performed the following steps (tasks):

- **Activities:**

Because the researcher found that the textbook of the course (304) provided by the Department of Curriculum and Instruction does not contain interactive activities and enough examples, I (based on the objectives of the five educational units of the course) prepared educational activities, illustrative examples and self-assessment questions by designing PowerPoint slides. I tried to select and create activities that engage the students during class. It was presented to a group of arbitrators comprising academic staff members at the Department of Curriculum and Instruction, and who are specialists in the General Teaching Methods Course (304), for their feedback over the activities, examples and self-assessment questions before installing them on Blackboard or being uploaded to Facebook.

- **Time allocated for teaching:**

The period of teaching the course (304) and all the assessment tests was already allocated by the Department of Curriculum and Instruction for the period from 28 February 2010 until 17 June 2010, i.e. for 16 weeks.

- **Attendance requirements:**

The policy of the college for students who registered in this course (304) is to attend class (face-to-face) 4 hours a week in two separate days (2 hours each day). Attendance at lectures is compulsory for all college students.

And because the two groups in this course (304) will study via the blended learning method of teaching, that is why I asked the college to reduce the attendance of both first and second experimental groups by 50%, and to ask the students in these two experimental groups to attend the class once a week (2 hours face-to-face) instead of twice a week (4 hours face-to-face).

- **How to teach the experimental groups and the control group**

In terms of the experimental groups, I decided to do the following: during the face-to-face class, he will explain the concepts to the students though only briefly instead of details using PowerPoint slides, followed by some discussion, working in groups, and then outside the class, the students have to go online using VLE of Blackboard (for the first experimental group), and PLE of Facebook (for the second experimental group) to discuss online using the discussion board with other students in the course, doing some research so as to be able to participate, ask online questions to the instructor especially if there are some clarifications required. Then, in the next face-to-face meeting in class, there is a specific time (first 15 minutes) at the beginning of the lecture, where students are given the chance to ask or say something relating to the online discussion and online activities, and also to learn if they faced some difficulties using the tools of Blackboard or Facebook.

In terms of the control group, I decided to use the familiar method of teaching used at the College of Basic Education which is the face-to-face learning method of teaching alone.

- **Blackboard and Facebook:**

I decided to use Blackboard and Facebook for the first and second experimental groups because of the following:

- To benefit from the interactive environments of Blackboard or Facebook, thereby engaging students to participate in the discussions and activities or exchange ideas and experiences.
- To benefit from the communication tools available in Blackboard and Facebook, the communication can be between the student and the rest of his classmates or the instructor of the course (researcher).
- Benefiting from the self-assessment questions tool available in the blackboard which relays immediate feedback to the student when participating in answering questions in this tool.
- Reference activities: these include books and references which the instructor of the course (researcher) can give to his students in the form of Word or PDF files for students to download or through hyperlinks in some useful sites available on the web and related to the curriculum.

- **Instructional Strategies in Teaching the Course (304)**

Competition and Tangible Rewards: I decided to use some interactive competitive activities whether in the classroom or outside the classroom to motivate and engage students to learn. For example, one of these competitive activities was to divide the students into groups, and then each group had to choose one student. This student would go to the instructor (researcher), and the instructor would give him one educational concept (without the rest of the students hearing it), then the student has to perform in a limited time (2 minutes) in front of his group (without talking) by trying to deliver the educational concept using his body language or the board if he would like to draw something that can lead students or help them identify this concept. The winning group is the one who can give the correct answer ("correct name of the concept") within the two minutes. Thus, points are scored for each group, and the winner is the group that gathered the largest number of points. Then, the winning group is given some tangible rewards (chocolate or sweets).

Interesting Videos: One of the activities that I used to motivate students' learning is using some interesting flash or videos, whether inside or outside the classroom through Blackboard or Facebook. For example, in Unit Two, when dealing with the topic of a successful and effective teacher, there was one required educational activity where students had to watch a video clip of a teacher in the process of teaching his students. Then, the students were asked

to discuss it in groups (in the classroom) or through Blackboard or Facebook after watching this clip in order to answer questions about this activity: was the teacher successful or unsuccessful? And why?

Figure (7): The negative teacher

Figure (8): A bored student in class

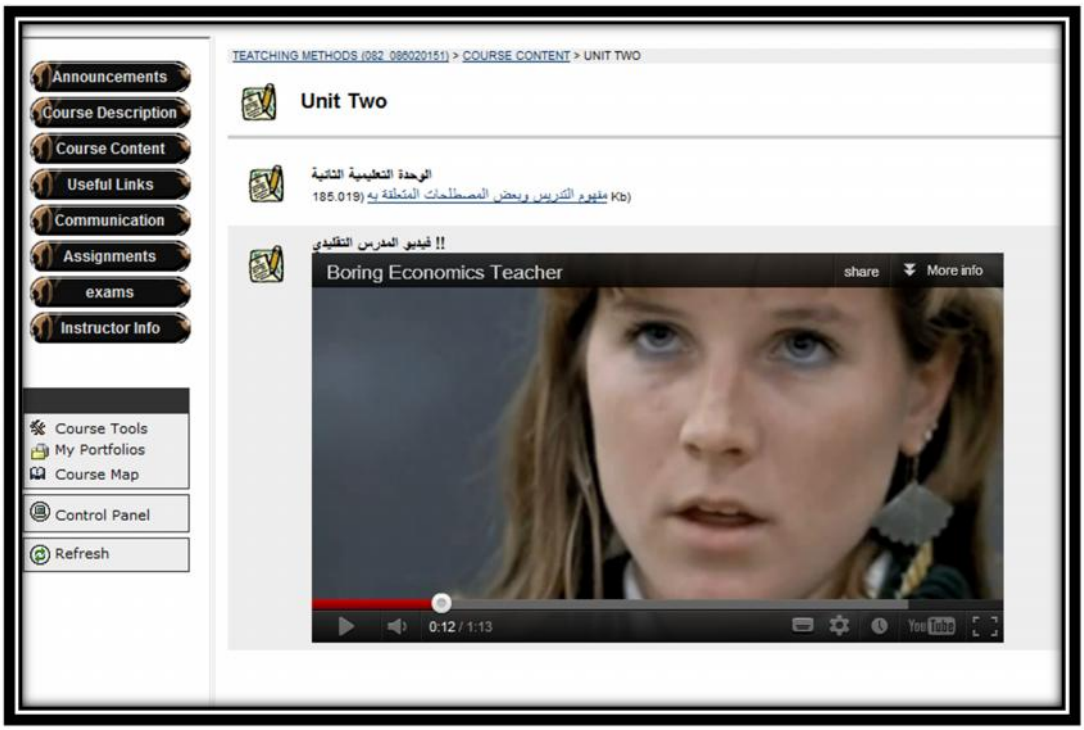


Figure (9): Another bored student in class

I also decided to do some video interviews with a group of college academic staff at the Department of Curriculum and Instruction to discuss any issue or topic on the General Teaching Method (304), and then to present this video interview to the students, to be followed by some activities regarding what they watched and listened to in these video interviews.

Interesting and Useful Tools: At this stage, I decided to activate some useful tools in Blackboard and Facebook. For example, I created a special corner for the students, so that students can find feedback from his level participation in the VLE of Blackboard through the tool of 'My progress'. I also added another tool (My grades) for the students which would motivate them to look for their grades online. Another important tool to be activated is Self-Assessment Questions in the Blackboard, which provides immediate feedback when students answer each question in this tool. In addition, there was one other very important and useful tool, namely, the communication tools which include discussion board tool, email tool, online working group tool, and messages tool in both Blackboard and Facebook.

Figure (10): Communication Tools in the (304) Course on Blackboard

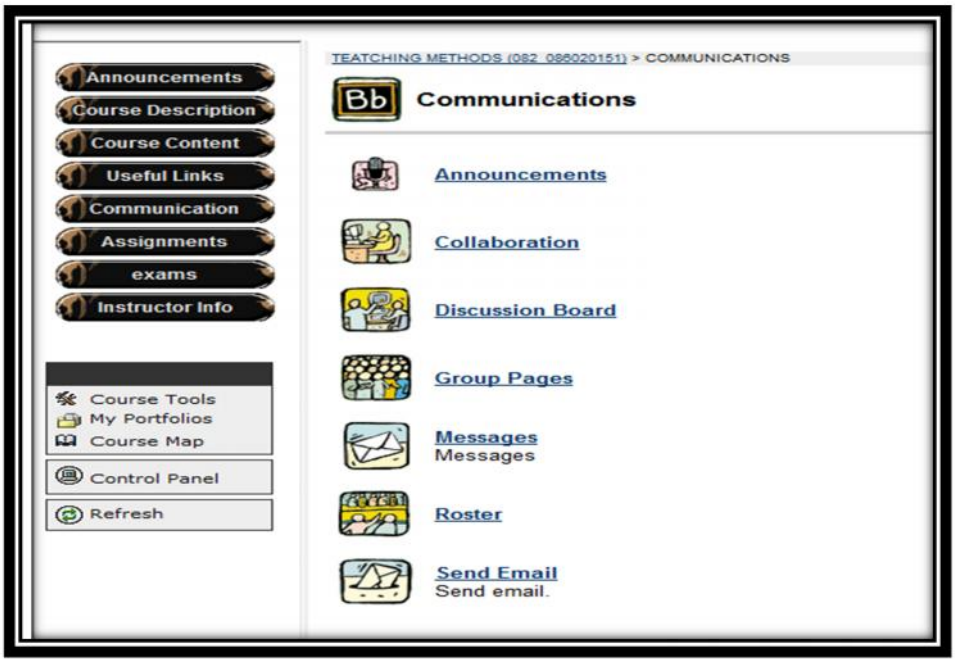


Figure (11): Groups' Pages Tool in the (304) Course on Blackboard

Figure (12): Questions to the Instructor Section on Facebook

Figure (13): Discussion Section on Facebook

Moreover, among the matters to be decided by the researcher was activating the Chat Tool for both the first and second experimental groups, which engaged and motivated students enrolled in this online course.

Figure (14): Chat Tool in the (304) Course on Blackboard

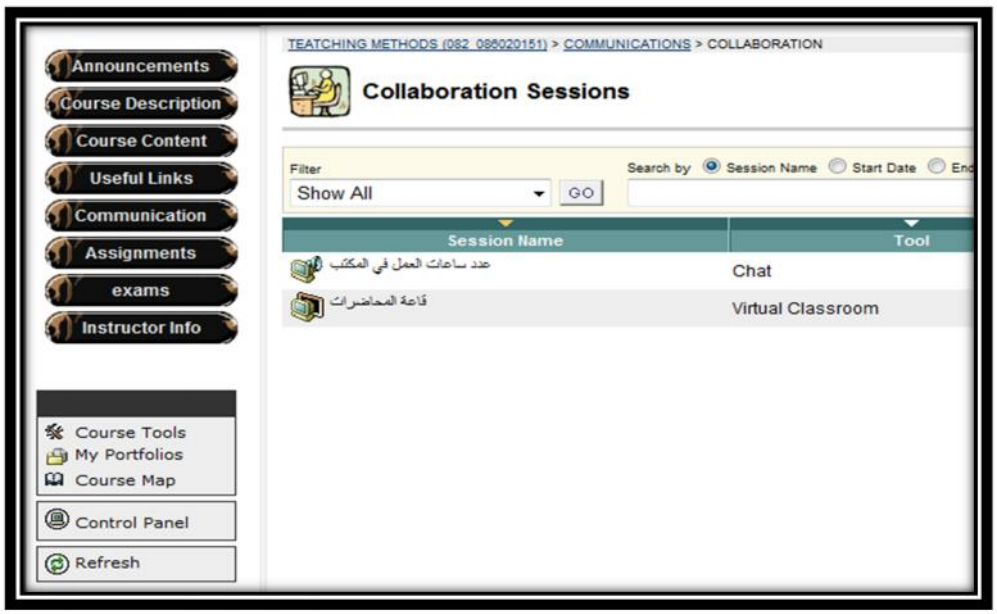


Figure (15): Chat using meeboo program for the Facebook group

Learning Objectives: I decided at this stage to focus on the learning objectives of this course (304) due to their importance to the learner by means of slide presentation. As there was reference to the objectives to be achieved before starting to teach each educational unit, these

should be achieved by the student at the completion of each unit. This is the learning objectives for each unit which were not found or contained in the textbook of the course provided by the Department of Curriculum and Instruction. That is why the researcher decided to include them in his PowerPoint slides presentation to make students focus on them when starting to teach each unit of the course (304).

Instructional Sequence: While preparing the slide presentations and activities for this course (304), the researcher decided to set up links and follow-up between the subjects, information on each educational unit and between the interactive activities, so that there would be a sequence and follow-up of the topics of the educational unit being linked to the activities. At the beginning of each educational unit (in the power point slides), there was a set of learning objectives for each unit, and then the information and some examples with interactive activities dealing with these objectives in a certain order. Every concept and information had been put up in the content of the Unit paving the way for interactive activity, and after each activity there was a feedback, and then there were comments on this feedback. And then, at the end of the unit there were conclusion and self-assessment questions, and the same goes for each educational unit.

Diversity in the activities: There was diversity in terms of the educational activities used in this course (304), whether in the classroom or outside the classroom through Blackboard or Facebook. As pointed out, the researcher used flash and videos in some activities, also in some competitive activities. There were some activities that make the student think about what to do if he was put in a specific educational situation with his fellow students in class: what is he going to do? How will he deal with this situation in the class? Some other activities asked the student to visit specific websites, and to do some research seeking answers to questions in the activity.

Feedback: For the first experimental group, a self-assessment tool through the Blackboard system was used in the course (304). This tool gives students a good opportunity to receive direct feedback, because the researcher has put questions in this tool covering the objectives of each educational unit in the course (304), and so to enhance the process of achieving the course objectives, the student is able to receive direct and immediate feedback when answering these questions:

Figure (16): Self-assessment questions and direct feedback

Also, one of the feedback forms that were given to the students in both the first and second experimental groups was through the use of private email for each student, as well as through private messaging through Facebook or Blackboard. In this case, the researcher decided to explain to each student the weakness points as seen in his work, but also display the strong points in the student's work. There was also feedback to all students of the three groups in the classroom after the completion and performance of a particular activity, at the end of each face-to-face lecture or during office hours.

In addition, the discussion tool in this course (304) has been employed to be an effective tool in the subject of feedback, which gives students the opportunity to practice learning through sharing their views on the discussion topics which have a link to the learning objectives of each educational unit in the course (304). The role of the researcher was to determine the direction of some posts in the discussions, especially in cases where he noted a lack of understanding among some students on certain topics of discussion on Blackboard or Facebook. So, sometimes the researcher had to join the online discussion to adjust the direction of some of the posts and to correct any misunderstandings, thereby helping students keep to the main topic of the discussion.

- **Assessment Method and Grading**

I had to follow the directives from the Department of Curriculum and Instruction when it came to assessment methods and grading. The head of the department provided me with a copy of the assessment method for the course (304), which I was obliged to use:

Table (2): assessment method for the course (304)

Assessment Methods	Grades
Mid-term Test	25
Practical Test	15
Discussions and Participations	15
Attendance	5
Final Test	40
Total	100

4.8.3 Development Phase

At this stage, the plan and design specifications made in the previous phase (design) were produced, and then converted into a product which can be used with electronic content through the Virtual Learning Environment (Blackboard) and Facebook, all for the sake of meeting the needs of learners in this course (304).

Also, at this stage I made a full and careful review of the materials, activities and strategies that were designed for the last phase. I also uploaded all the required files into Blackboard and Facebook.

Both VLE of Blackboard and PLE of Facebook have been tested in this phase in order to improve them, in which case I accessed the course (304) through Blackboard and Facebook once as instructor (designer) and in another time as a student. Afterwards, some adjustments were made due to some spelling mistakes and technical errors. Then, I asked some of the academic staff at the Department of Curriculum and Instruction to make a full review and to consult them about their opinions regarding the design of the course (304). After making the required amendments, I asked some of the academic staff again to make one final check of both Blackboard and Facebook regarding course (304).

4.8.4 Implementation phase

This is the actual application of the system (Blended learning using Blackboard and Facebook) to the course (304), and this stage comes after the development process.

At this stage, the blended learning teaching method using VLE of Blackboard (for the first experimental group) and PLE of Facebook (for the second experimental group) are applied to students in the General Teaching Method Course (304), while the control group are taught using the face-to-face learning method alone. In this phase, I applied all that have been planned in the design phase, and collected all the data that I needed.

4.8.5 Evaluation phase

This is the final phase where we consider the feedback from the students, and evaluate their achievements in the three tests of the course (304) after having applied the blended learning teaching method using VLE of Blackboard and PLE of Facebook. Moreover, the students' responses to the satisfaction questionnaire and interviews will be evaluated regarding their opinions on the teaching method used in the General Teaching Method Course (304). The evaluation will also look at the advantages and disadvantages of using this kind of teaching method in the course in order to determine the effect (impact) of using the blended learning teaching method compared to face-to-face learning alone.

4.9 The Statistical Methods

Data of the research was analysed using SPSS. I discussed this with some of the academic staff at the College of Basic Education in Kuwait regarding the most suitable statistical tools to be used in the current study. They advised me to consult one of the top experts in statistics in the Arab world, namely, Prof. Abdulhameed Al-Abassy from Cairo University. I went through these consultations mainly to determine the most appropriate statistical methods to be used in this research. Accordingly, the following statistical tools were deemed the most appropriate for data analysis:

- The Kolmogorov-Smirnov Test was used for verification of dependency of study data on the normal distribution.
- Chi-square test and F-test were used to test the equality of the experimental and control groups in terms of the control variables.

To assess the study hypotheses, the following tests were used:

- The Multivariate Analysis of Variance (MANOVA).
- One-way analysis of variance (ANOVA).
- The Pairwise Comparisons using Scheffe's Test.

This chapter is one of the most important in this study. It outlines why I chose a mixed-method research approach using the Explanatory Sequential Design. It also explains why and how I started with the collection and analysis of the quantitative data (using a quasi-experimental approach), which has been critical for addressing the two research questions. This is followed with the collection and analysis of the qualitative data (using group interviews) to help explain the quantitative results. So, to achieve the aim of this study (identifying the effect of using blended learning on female student-teachers' achievement and satisfaction) and to test the study hypotheses, it was necessary to design the tools that can help me collect and analyse the quantitative data (students' scores in the mid-term, final, practical tests of the course in addition to their scores in the satisfaction questionnaire) and qualitative data (students' opinions over the method of teaching used in this course during the group interviews) for the purpose of addressing the research questions of the study.

Chapter 5: Results of the study

The present study addresses the impact of blended learning on academic achievement and female students' level of satisfaction. Accordingly, certain tools have been developed to examine the study hypotheses. Having applied these tools, and after obtaining the data, the results of analysis of these data will be presented in the present chapter. It starts with the results related to verification on dependency of the study data on the normal distribution, and then the results related to the equality of the control and experimental groups on the control variables. This is followed by a presentation of results related to the study hypotheses, before a discussion is made of these results.

5.1 Verification of dependency of study data on the normal distribution

Initially, the researcher tested the dependency of the study data on the normal distribution (as a whole and for each group separately). The researcher used the statistical program SPSS18, and applied it to the dependent variables represented by the academic achievement, which include Mid-term test, Final test, and Practical test. This was in addition to the level of satisfaction among female students with the course (304), three dimensions of satisfaction (the teaching method – the content – the instructor support), and the control variables including GPA for both college and high school students and the rate of female students who use computers and the Internet. The Kolmogorov-Smirnov Test was used, which showed that the overall data and that for each of the three groups are in dependency of the dependent variables to the normal distribution, where the probability of error P-value or (Sig.) was more than 5%. This shows that the dependent variables and the control ones of the three groups follow the normal distribution, and this is what leads us to use the Parametric Tests except for the satisfaction of the instructor support in the total sample, which is close to 5% (0.045) as shown by the following table:

Table (3): shows test results for the dependence on the normal distribution of the three groups and for the whole sample

Variable	(N=39) EXP 1			(N=31) EXP 2			(N=26) CON			(N=96) Total		
	Statist	Sig	Std	Statist	Sig	Std	Statist	Sig	Std	Statist	Sig	Std
GPA HS	0.787	0.565	8.387	0.537	0.935	5.460	0.912	0.376	5.865	0.969	0.304	6.973
GPA College	0.561	0.912	0.727	0.901	0.391	0.919	0.549	0.924	0.609	1.089	0.187	0.759
Computer & Internet	0.759	0.611	16.808	0.903	0.389	17.732	1.250	0.088	18.345	1.499	0.022	17.387
Midterm Test	0.675	0.752	3.067	0.948	0.330	3.499	0.864	0.444	2.892	0.969	0.305	3.273
Final Test	1.337	0.056	11.4 5	0.618	0.840	12.591	0.996	0.274	12.378	1.070	0.202	12.883
Practical Test	0.655	0.785	0.203	0.614	0.846	0.196	0.794	0.554	0.298	1.078	0.196	0.232
Satisf. of TM	0.705	0.703	0.335	0.675	0.752	0.317	1.112	0.169	0.360	1.215	0.105	0.368
Satisf. of Cont	0.822	0.509	0.285	0.539	0.933	0.320	0.775	0.585	0.387	1.212	0.106	0.328
Satisf. of Instuctor S	0.908	0.382	0.239	1.067	0.205	0.291	0.610	0.850	0.321	1.378	0.045	0.290
Satisfaction	0.777	0.582	0.760	0.502	0.963	0.848	0.424	0.994	0.904	0.936	0.346	0.873

5.2 Equality of the experimental and control groups in terms of the control variables

As already mentioned in chapter 4, the control variables of the current study are GPA for both college and high school, students' use of computers and internet, students' academic disciplines, and students' marital status.

To investigate the significant differences between the three groups (the two experimental groups and the control group) in these control variables, and to check the equivalence of experimental groups and control group in the qualitative control variables, which include the academic disciplines and the marital status, the Chi-square test was used. It was found that the value of the test by the academic disciplines is not significant, meaning that the three groups were equal in the academic disciplines' variable. The results further showed that the value of the test by the marital status is not significant, meaning that the three groups were also equal in the marital status variable as reflected in the following table:

Table (4): results of the chi square test for the differences between the groups as per academic discipline and marital status

Variables		Groups			Total	Chi-S. (Sig.)
		EXP1.	EXP2.	CONT.		
Disciplines	*English*	15	12	10	37	6.731 (0.346)
	Art	3	3	3	9	
	Music	17	11	5	33	
	PE	4	5	8	17	
Marital Status	*Single*	33	29	21	83	2.163 (0.339)
	Married	6	2	5	13	
Total		39	31	26	96	

To check the equivalence of the three groups in the quantitative control variables (GPA for both college and high school - students' use of computers and internet), the researcher calculated the equivalence of these variables through the F-test, and their significance and results are shown the following table:

Table (5): Results of F-test for the differences between the groups as per GPA for both college and high school and students' use of computers and internet

Groups		High School GPA	College GPA	Computer & Internet	F (Sig.)
EXP 1	Mean	76.84	2.44	21.94	2.024 (0.138)
	Std. Dev.	8.39	0.73	16.81	
	N	39	39	39	
EXP 2	Mean	74.11	2.45	23.19	0.013 (0.987)
	Std. Dev.	5.46	0.92	17.73	
	N	31	31	31	
CONT	Mean	77.46	2.42	20.08	0.224 (0.799)
	Std. Dev.	5.86	0.61	18.35	
	N	26	26	26	
Total	Mean	76.13	2.44	21.84	
	Std. Dev.	6.97	0.76	17.39	
	N	96	96	96	

Table (5) shows the mean values and standard deviations as well as the F value for the quantitative control variables of the three groups. It is clear from the table that the high school GPA for the control group is higher than each of the two experimental groups. While we find that the college GPA and rate of computer and Internet use for the control group are slightly less than the two experimental groups, the differences between the three groups in terms of the quantitative control variables were not significant, and this was reflected in the

F-test value in Table (5). This means that the three groups were equal in terms of the three quantitative control variables. Based on these results, we can safely say that the three groups were equal in the quantitative and qualitative control variables before applying the experimental treatment.

5.3 Results related to the first hypothesis

The first hypothesis states the following: "The use of the Blended Learning method in the General Teaching Method Course (304) leads to better academic achievement as compared with the face to face learning alone".

The post-achievement test was applied (mid-term test - final test - practical test) to the General Teaching Method Course (304), and the data of the female students' results in these tests have been statistically analysed in order to compare students' grades in the two experimental groups (each separately) with the grades of students in the control group. This was carried out in order to determine the impact of using the blended learning method on academic achievement compared to the face-to-face learning method alone. Means and standard deviations were calculated for students of the three groups.

To test the first hypothesis, the Multivariate Analysis of Variance (MANOVA) method was used. The MANOVA is a type of multivariate analysis used to analyse data that involves more than one dependent variable at a time. MANOVA allows us to test hypotheses regarding the effect of one or more independent variables on two or more dependent variables. It is often used to detect differences in the average (means) values of the dependent variables between the different levels of the independent variable. It is simply an ANOVA with several dependent variables. (http://www.statisticspower.com/methods/manova.html).

Table (6) shows a summary of the results of the multivariate analysis of variance, MANOVA, where the group of dependent variables included the three main dimensions of the achievement:

1.Mid-term test

2. End of year test (final)

3. Practical test

There is of course the independent descriptive variable, which is the experimental treatment of the groups (after testing equality of the three groups in each of GPA for both college and high school, the use of computers and Internet, disciplines and marital status), where the original hypothesis is tested (null), stating the equality of means vector of the dependent variables across the categories of descriptive independent variable (the treatment for the groups) against the alternative hypothesis of inequality, in addition to the Intercept.

Table (6): Summary of results of the Multivariate Analysis of Variance MANOVA, F test and its significance for the first hypothesis

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.992	4002.624	3	91	0.000	0.992
	Wilks' Lambda	0.008	4002.624	3	91	0.000	0.992
	Hotelling's Trace	131.955	4002.624	3	91	0.000	0.992
	Roy's Largest Root	131.955	4002.624	3	91	0.000	0.992
Groups	Pillai's Trace	0.173	2.908	6	184	0.010	0.087
	Wilks' Lambda	0.830	2.960	6	182	0.009	0.089
	Hotelling's Trace	0.201	3.010	6	180	0.008	0.091
	Roy's Largest Root	0.178	5.459	3	92	0.002	0.151

Based on the previous table and taking the significance level to be 5% as criterion for the entry of independent variables, it is clear that there are significant differences in the three main dimensions of academic achievement by groups, in addition to the Intercept. The percentage of interpretation for each independent factor is between 8.7% and 15.1%, and 99.2% for the model as a whole.

Table (7) shows a summary of results of a one-way analysis of variance ANOVA for three dimensions of achievement according to the group and percentage of explanation for each one.

Table (7): Summary of results of One-Way ANOVA, for the first hypothesis

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Mid Total Score	84.052	2	42.026	4.185	0.018	0.083
	Final Total Score	2229.486	2	1114.743	7.658	0.001	0.141
	Practical Total Score	0.151	2	0.076	1.421	0.247	0.030
Intercept	Mid Total Score	19611.787	1	19611.787	1952.976	0.000	0.955
	Final Total Score	308445.649	1	308445.649	2118.966	0.000	0.958
	Practical Total Score	650.495	1	650.495	12240.945	0.000	0.992
Groups	Mid Total Score	84.052	2	42.026	4.185	0.018	0.083
	Final Total Score	2229.486	2	1114.743	7.658	0.001	0.141
	Practical Total Score	0.151	2	0.076	1.421	0.247	0.030
Error	Mid Total Score	933.906	93	10.042			
	Final Total Score	13537.473	93	145.564			
	Practical Total Score	4.942	93	0.053			
Total	Mid Total Score	21610.000	96				
	Final Total Score	341734.000	96				
	Practical Total Score	675.724	96				
Corrected Total	Mid Total Score	1017.958	95				
	Final Total Score	15766.958	95				
	Practical Total Score	5.093	95				

a. R Squared = .083 (Adjusted R Squared = .063)

b. R Squared = .141 (Adjusted R Squared = .123)

c. R Squared = .030 (Adjusted R Squared = .009)

It is clear that there are statistically significant differences for the groups (the treatment) at the mid-term test and the final test, but with non-significant differences for the practical test. The interpretation percentages for the three dependent variables of achievement are respectively 8.3% (for the mid-term test), 14.1% (for the final test) and 3.0% (for the practical test). It is clear that the impact of the group (the treatment) is due mostly to the final test, when the percentage of interpretation between the mid-term and final test results is doubled in the final test, which may indicate that the impact of using blended learning in teaching a course over the long term leads to better achievement results compared with face-to-face learning alone.

Table (8) shows the Pairwise Comparisons test results using Scheffe' Test for the three dimensions of achievement by the three groups (the first and second experimental groups and the control group).

Table (8): Test results of the Pairwise Comparisons between the three groups for academic achievement using Scheffe' Test

Scheffe Test			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Dependent Variable	Groups					Lower Bound	Upper Bound
Mid Total Score	EXP1.	EXP2.	0.977	0.763	0.443	-0.920	2.874
		CONT.	2.32*	0.802	0.018	0.325	4.316
	EXP2.	EXP1.	-0.977	0.763	0.443	-2.874	0.920
		CONT.	1.344	0.843	0.285	-0.753	3.440
	CONT.	**EXP1.**	**-2.32***	**0.802**	**0.018**	**-4.316**	**-0.325**
		EXP2.	-1.344	0.843	0.285	-3.440	0.753
Final Total Score	EXP1.	EXP2.	5.868	2.903	0.135	-1.354	13.091
		CONT.	11.88*	3.055	0.001	4.285	19.484
	EXP2.	EXP1.	-5.868	2.903	0.135	-13.091	1.354
		CONT.	6.016	3.208	0.178	-1.966	13.998
	CONT.	**EXP1.**	**-11.88***	**3.055**	**0.001**	**-19.484**	**-4.285**
		EXP2.	-6.016	3.208	0.178	-13.998	1.966
Practical Total Score	EXP1.	EXP2.	-0.033	0.055	0.842	-0.171	0.105
		CONT.	0.069	0.058	0.497	-0.076	0.214
	EXP2.	EXP1.	0.033	0.055	0.842	-0.105	0.171
		CONT.	0.102	0.061	0.257	-0.051	0.254
	CONT.	EXP1.	-0.069	0.058	0.497	-0.214	0.076
		EXP2.	-0.102	0.061	0.257	-0.254	0.051

As seen from the table, the difference was not significant in the practical test grade between the first and second experimental groups compared to the control group at the significance level of 5%, whereas the difference (2.32) was significant in the mid-term test for the first experimental group compared to the control group with mean of 15.59 and 13.27 respectively at the significance level of 5%. On the other hand, the (11.88) difference was significant in the final test for the first experimental group compared to the control group with mean of 63.38 and 51.50 respectively at the significance level of 5%.

Based on the above, we accept the first hypothesis, which states that "using the method of blended learning in the General Teaching Method Course (304) leads to better academic achievement compared with the method of face-to-face learning alone". This proved that there is a significant impact for the experimental treatment of the first experimental group compared to the control group at level of 5%.

The following figures demonstrate the above conclusion for the three dependent variables of academic achievement by the three groups:

Figure (17): Estimate for the means of mid-term test by groups for the first hypothesis

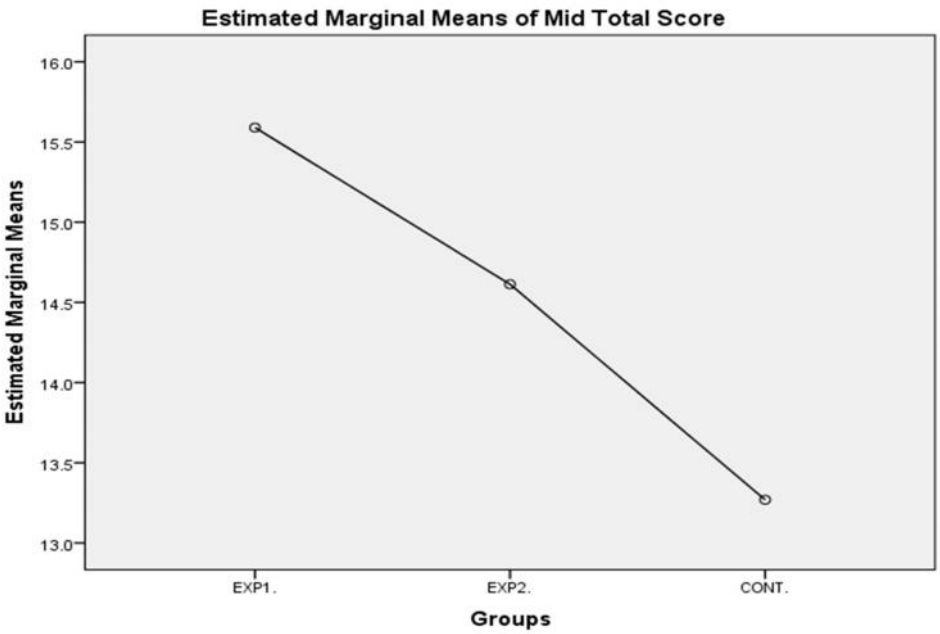


Figure (18): Estimate for the means of the final test by groups for the first hypothesis

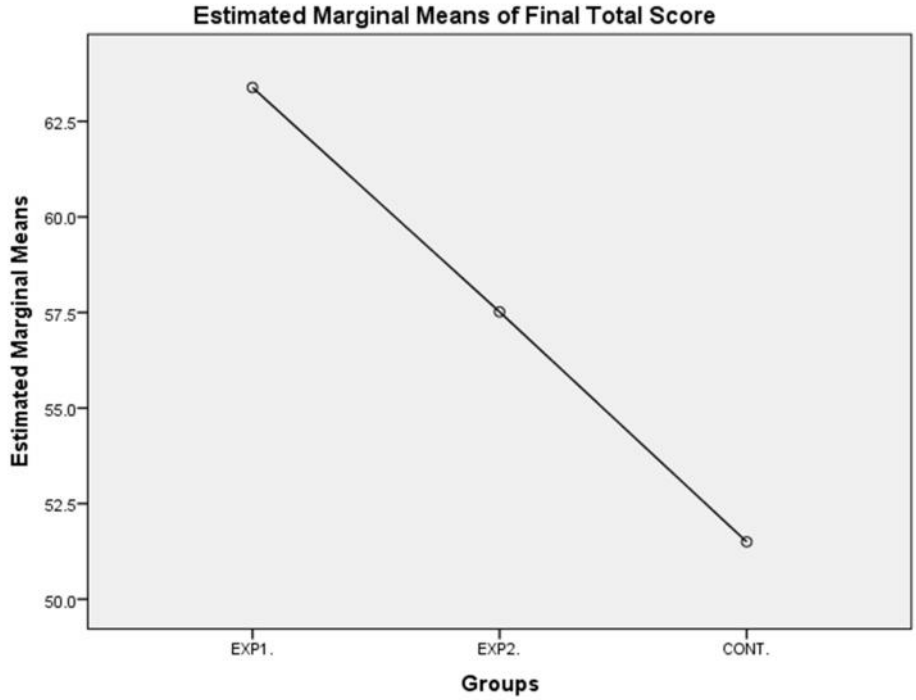
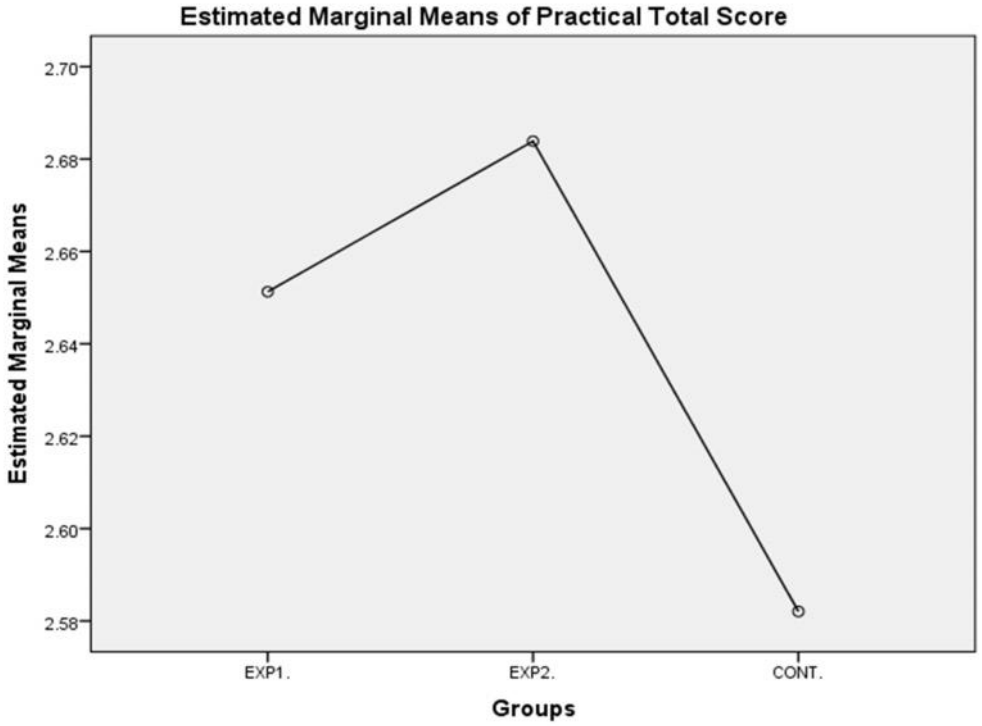


Figure (19): estimate for the means of the practical test by groups for the first hypothesis



5.4 Results related to the second hypothesis

The second hypothesis states the following: "Using the method of blended learning in the General Teaching Methods Course (304) leads to better satisfaction compared with the method of face to face learning alone."

Having applied the post-test for the satisfaction of the three groups by means of the satisfaction questionnaire with the Course (304) in its three dimensions (the teaching method, content, and instructor support), data resulting from this questionnaire were statistically processed to compare the grades of the first and second experimental groups (each separately) with the grades of the control group to determine the effect of using blended learning on students' satisfaction compared to face to face learning alone. Means and standard deviations were also calculated for the students' grades according to the three groups.

To test the second hypothesis, the Multivariate Analysis of Variance (MANOVA) method was used. As we have mentioned, The MANOVA is a type of multivariate analysis used to analyse data that involves more than one dependent variable at a time. MANOVA allows us to test hypotheses regarding the effect of one or more independent variables on two or more dependent variables. It is often used to detect differences in the average (means) values of the dependent variables between the different levels of the independent variable. It is simply an ANOVA with several dependent variables.

(http://www.statisticspower.com/methods/manova.html).

Table (9) shows a summary of the results of the Multivariate Analysis of Variance MANOVA, where the group of dependent variables include the three main dimensions of satisfaction, which are:

1. Teaching method.
2. Content.
3. Instructor Support.

Table (9): Summary of the Multivariate Analysis of Variance MANOVA, F test and its significance for the second hypothesis

Effect		Value	F	Hypothesis df	Error df	Sig.	Partial Eta Squared
Intercept	Pillai's Trace	0.994	4884.363	3	91	0.000	0.994
	Wilks' Lambda	0.006	4884.363	3	91	0.000	0.994
	Hotelling's Trace	161.023	4884.363	3	91	0.000	0.994
	Roy's Largest Root	161.023	4884.363	3	91	0.000	0.994
Groups	Pillai's Trace	0.237	4.116	6	184	0.001	0.118
	Wilks' Lambda	0.766	4.322	6	182	0.000	0.125
	Hotelling's Trace	0.302	4.523	6	180	0.000	0.131
	Roy's Largest Root	0.289	8.857	3	92	0.000	0.224

From the previous table and taking the significance level of 5% as criterion for the entry of independent variables, it is clear that there are significant differences in the three main dimensions of satisfaction by groups, in addition to the Intercept. The percentage of interpretation for each independent factor is between 11.8% and 22.4%, and 99.4% for the model as a whole.

Table (10) shows a summary of results from a one-way analysis of variance ANOVA, for the three dimensions of satisfaction according to the group and percentage of explanation for each one. Table (11) shows the Pairwise Comparisons test results using Scheffe' Test for the three dimensions of satisfaction by the three groups (the first and second experimental groups and the control group).

It is clear that there are statistically significant differences for the group (the treatment) in both dimensions of the teaching method and the instructor support, and there were no significant differences for the course content dimension at the 5% level of significance per groups. The percentage of interpretation with the three dependent variables of satisfaction was respectively 18.1% (for the teaching method), 3.3% (for the content), 8.7% (for the instructor support). It is clear that the effect on the group (the treatment) was due mostly to the teaching method, which emphasises that using the method of blended learning leads to greater satisfaction among female students compared to the method of face to face learning alone.

Table (10): Summary of results from one-way analysis of variance ANOVA for the second hypothesis

Source		Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
Corrected Model	Teaching Method	2.329	2	1.165	10.277	0.000	0.181
	Content	0.340	2	0.170	1.594	0.209	0.033
	Instructor's Support	0.693	2	0.347	4.422	0.015	0.087
Intercept	Teaching Method	1092.858	1	1092.858	9642.727	0.000	0.990
	Content	1138.576	1	1138.576	10684.683	0.000	0.991
	Instructor's Support	1052.740	1	1052.740	13431.499	0.000	0.993
Groups	Teaching Method	2.329	2	1.165	10.277	0.000	0.181
	Content	0.340	2	0.170	1.594	0.209	0.033
	Instructor's Support	0.693	2	0.347	4.422	0.015	0.087
Error	Teaching Method	10.540	93	0.113			
	Content	9.910	93	0.107			
	Instructor's Support	7.289	93	0.078			
Total	Teaching Method	1148.620	96				
	Content	1186.950	96				
	Instructor's Support	1098.110	96				
Corrected Total	Teaching Method	12.870	95				
	Content	10.250	95				
	Instructor's Support	7.982	95				

a. R Squared = .181 (Adjusted R Squared = .163)

b. R Squared = .033 (Adjusted R Squared = .012)

c. R Squared = .087 (Adjusted R Squared = .067)

Table (11) shows the test results of the Pairwise Comparisons test between the three groups (the first and second experimental groups and the control group) for the satisfaction with its three dimensions using Scheffe' Test.

Table (11): Test results of the Pairwise Comparisons test between the three groups for the Satisfaction using Scheffe' Test

Scheffe' Test			Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
Variable Dependent	Groups					Lower Bound	Upper Bound
Teaching Method	EXP1.	EXP2.	-0.068	0.081	0.701	-0.270	0.133
		CONT.	.3141*	0.085	0.002	0.102	0.526
	EXP2.	EXP1.	0.068	0.081	0.701	-0.133	0.270
		CONT.	.3825*	0.090	0.000	0.160	0.605
	CONT.	**EXP1.**	**-.3141***	**0.085**	**0.002**	**-0.526**	**-0.102**
		EXP2.	**-.3825***	**0.090**	**0.000**	**-0.605**	**-0.160**
Content	EXP1.	EXP2.	0.041	0.079	0.873	-0.154	0.236
		CONT.	0.146	0.083	0.215	-0.059	0.352
	EXP2.	EXP1.	-0.041	0.079	0.873	-0.236	0.154
		CONT.	0.105	0.087	0.483	-0.111	0.321
	CONT.	EXP1.	-0.146	0.083	0.215	-0.352	0.059
		EXP2.	-0.105	0.087	0.483	-0.321	0.111
Instructor's Support	EXP1.	EXP2.	0.015	0.067	0.975	-0.152	0.183
		CONT.	.1974*	0.071	0.024	0.021	0.374
	EXP2.	EXP1.	-0.015	0.067	0.975	-0.183	0.152
		CONT.	0.182	0.074	0.055	-0.003	0.367
	CONT.	**EXP1.**	**-.1974***	**0.071**	**0.024**	**-0.374**	**-0.021**
		EXP2.	-0.182	0.074	0.055	-0.367	0.003

The difference was not significant in the dimension degree of the course content between the first and second experimental groups (each separately) compared to the control group at the level of 5% significance, while the difference (0.31) was significant in the teaching method dimension for the first experimental group compared to the control group. Moreover, the difference of (0.38) was significant in the teaching method dimension for the second experimental group compared to the control group with an average (mean) of 3.50 for the first experimental group, 3.57 for the second experimental group, and 3.19 for the control group at the level of 5% significance. However, the difference of (0.20) was significant in the degree of instructor support dimension for the first experimental group compared to the control group with an average (mean) of 3.43 and 3.23 respectively at the 5% level of significance.

Based on the above, we accept the second hypothesis, which states that "using the method of blended learning in the General Teaching Methods Course (304) leads to better satisfaction compared with the method of face to face learning alone". This proved that there is a significant impact for the experimental treatment of the first and second experimental groups (each separately) compared to the control group at 5% level in the teaching method dimension, and for the first experimental group compared to the control group in the instructor support dimension. Therefore, I can safely say that the students of the course (304) showed a higher level of satisfaction with the method of blended learning compared with the method of face to face learning alone.

The following figures demonstrate the above conclusion for the three dependent variables of satisfaction by the three groups:

Figure (20): Estimate for the teaching method dimension mean by groups for the second hypothesis

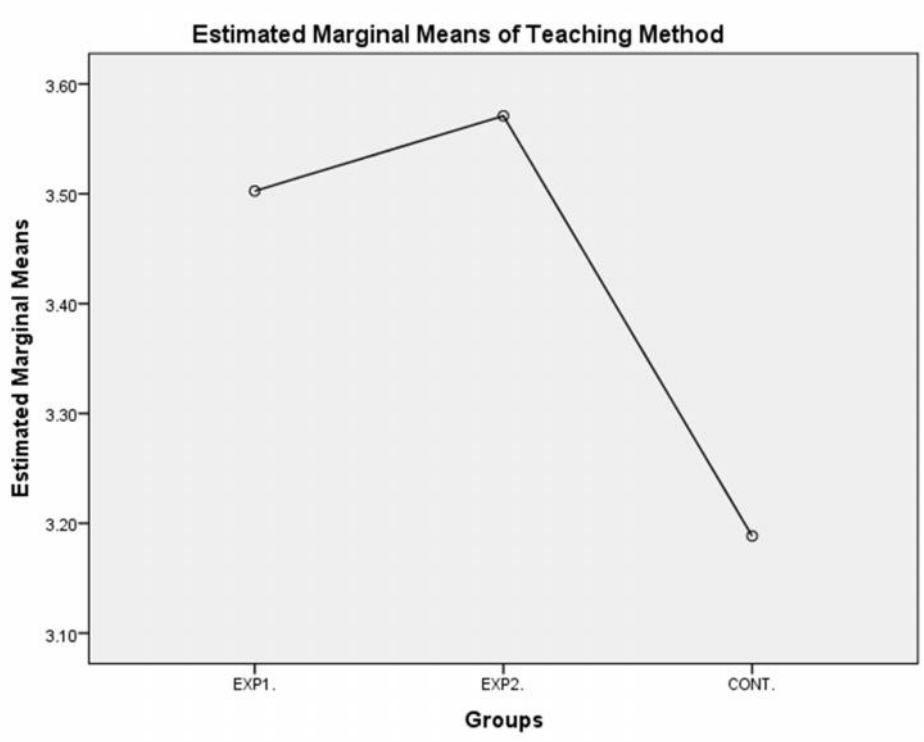


Figure (21): Estimate for the content dimension mean by groups for the second hypothesis

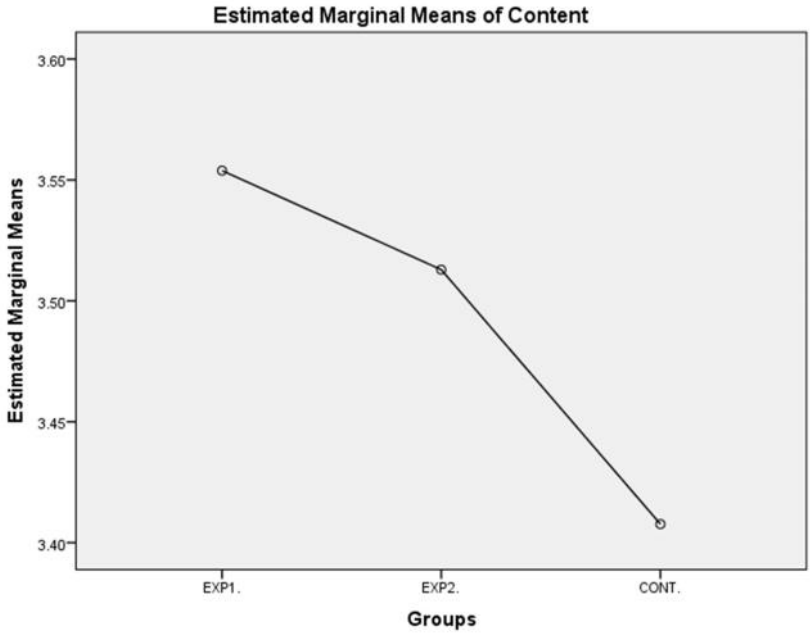
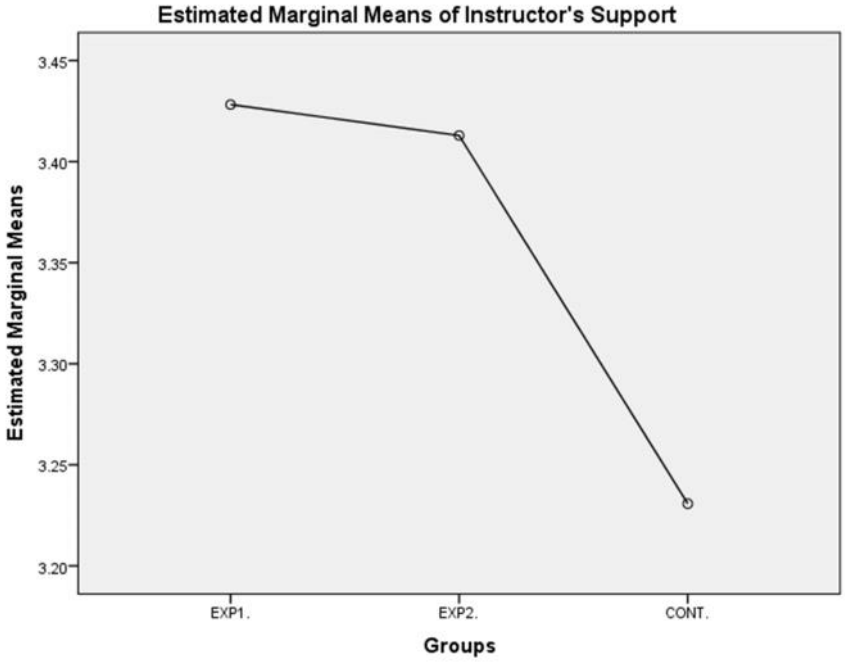


Figure (22): estimate for the instructor support dimension mean by groups for the second hypothesis



5.5 Results obtained from group interviews

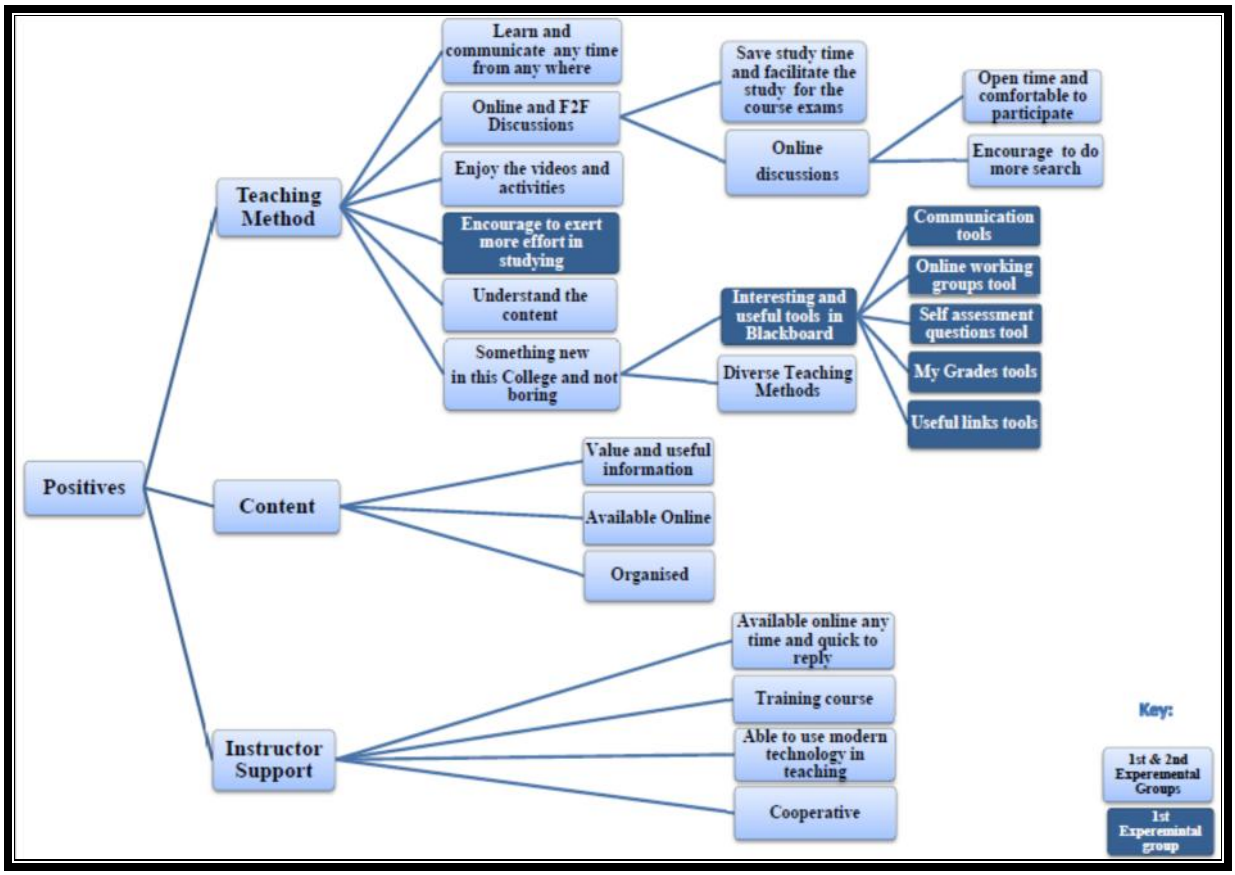
The interview questions focused on the positive and the negative aspects of using the blended learning method for the first experimental group (blended learning using VLE of Blackboard), the second experimental group (blended learning using PLE of Facebook), and the control (face-to-face learning) in the General Teaching Method Course (304). This was meant to ascertain their personal points of views about the following proposal: if in the second semester another course followed through the blended learning was presented – the same method as the one used in the General Teaching Method Course (304) – and another course is followed through the face-to-face learning method alone, what would you choose and why?

There were 9 face-to-face group interviews (3 interviews for each group) conducted for every 3-4 students together in a suitable and quiet place in the College of Basic Education. These interviews were carried out with 12 students who were randomly selected from the first experimental group (39 students in total), with 11 students (1 apologised) from the second experimental group (31 students in total), and with 9 students (3 apologised) from the control group (26 students in total). And thus, the total number of students who were interviewed in all three groups was 32.

The following is a summary of the most important opinions from 32 students who participated in the group interviews:

These were the positive comments about the Course (304) from the first experimental group (blended learning using VLE of Blackboard), the second experimental group (blended learning using PLE of Facebook), and the control group (face-to-face learning) according to the students' points of view:

Figure (23): Positives (students' opinions) obtained from group interviews



5.5.1 The positive comments of the teaching method of the course (304) according to the students' points of view

- All 12 students in the first experimental group and all 11 students in the second experimental group agreed that the most distinctive thing about the teaching method was that the student can learn, take lessons, send required assignments and communicate with the instructor and the rest of the students anytime from anywhere through communication tools in the Blackboard and Facebook, in direct contrast to the traditional lecture through face-to-face learning where time will be limited.

  - **From first experimental group:**

    When I asked the students in the last question of the interview: If in the second semester there is another course followed by blended learning through Blackboard – the same method used in the General Teaching Method Course (304) – and another course followed through face-to-face

learning method alone, what would you choose and why? Rawan answered it this way:

Omar (researcher): Thank you Hind. What about you Rawan, what would you choose and why?

Rawan: I choose the blended learning group because the other group that studied via the face-to-face traditional way ... they come to the class on a specific day and time and then everyone goes home without any communication about the course outside of class, but in blended learning there will be communication inside the class and outside of the class too, so we can practice learning at anytime from anywhere.

- **From second experimental group:**

Omar (researcher): Anything else you would like to add about the teaching method? Any positive or negative?

Zainab: Yes, I also like this method because it gives me the freedom to learn and study at any time. Sometimes, I wake up very early in the morning around 5 am and directly access the Facebook course group and participate in the discussion or post my opinion as well as reading what other students wrote…..

- All 12 students in the first experimental group and all 11 students in the second experimental group agreed that the discussions conducted among themselves through the discussion tool whether in Blackboard or in Facebook or in the class had a very great effect in facilitating, explaining and clarifying the course content. 8 from 12 students in the first experimental group and 6 from 11 students in the second experimental group mentioned that these discussions helped them save up on study time for the midterm and final exams. They did not need intensive study on the 'test night', as they put it.

- **From the first experimental group:**

Omar (researcher): What about you Afrah? What are you going to choose?

Afrah: Of course I will choose the Blended Learning Method.. because in all the years that I've studied at this college, they did not have any effect on us .. I mean most of the modules that I studied in the previous semester I forgot them already.. I forgot most of the information that they (the previous modules) provided .. because we used to study in a very very traditional method using F2F alone.. we just listen to the instructor during the lecture and then before the night of the exams, we memorize or just try to memorize the information in the book of the module, then at the end of the semester we forget all the information that we studied .. but here in blended learning using the Blackboard as in this course, I really really enjoyed it that I cannot forget the information that I got when I did some research before participating in the online discussion board .. I can't forget the information because we always discuss about it and not only listen in the class.. and I found this also before the final exam .. It did not take me a long time to study for the final exam because I found that I can understand the content .. yes, that's why I will choose for the Blended Learning group ..

- **From the second experimental group:**

  Bashayer: Ok, for me the nicest and most positive thing in the teaching method of this module is the discussion. I like it.

  Omar (researcher): Why did you like the discussion in this module?

  Bashayer: Because I think it is an active method and not a boring one. I mean with the discussion we actually do something in the class, and not only listen to the instructor. And this helped me facilitate and simplify the study preparation when I prepare myself for the exams.

- 9 from 12 students in the first experimental group and 6 from 11 students in the second experimental group agreed that the online discussions conducted in this course gave them a greater chance and more time to think and be more careful before replying and participating in the subject under discussion, contrary to the face-to-face discussion inside the class where time will be limited for replying and participating in the discussion.

- **From the first experimental group:**

  Razan: Because I think the discussion in the real class makes me confused and sometimes embarrassed, so I tend to hastily express my opinion on the subject of discussion in class .. But for me, the online discussion using the Blackboard is much better because it allows me to concentrate more and gives me a lot of time to think before I put down my opinion on the subject of the discussion. And I agree with Rabiaa that the online discussion saves us time and effort in preparing for the exams because when I studied for the exams I did not take much time to study since I remember most of the ideas from the content, as the online discussion makes me remember a lot of things relating to the course.

- **From the second experimental group:**

  Noor: I will choose the blended learning group because it will be easy for me to discuss online with fellow students and with the instructor. Sometimes, we don't have enough time to discuss everything during class, but this method will allow us to discuss them at any time with other students and with the instructor via Facebook.

- 5 from 12 students in the first experimental group and 3 from 11 students in the second experimental group stated that the online discussions were the reason they feel comfortable during the discussions because they do not prefer to discuss in front of people because of shyness.

  - **From the first experimental group:**

    Hind: The difference is that I am now able to prove myself … I mean that I am surpassing myself in relation to my negative habit of abashment ... in the other modules I cannot participate or discuss inside the class because I am a shy student. Although I know the answer to the question and have the ability to give my own idea, I do not say it because of this negative habit… but this kind of teaching

method (Blended Learning using Blackboard) gave me a very good chance and it made me feel comfortable to participate and discuss online in the Blackboard ..

- **From the second experimental group:**

  Yasmeen: Yes, I think it is an excellent idea to blend both methods together, face-to-face and online learning. And I think all other courses should do this because it is very useful for all of us; for example, I know some girls in this class who do not want to talk or discuss in class in front of other students or the instructor because they do not feel comfortable but this method gives them a chance to express and discuss online via Facebook comfortably without any stress.

- Respectively, all 12 and 11 students in the two experimental groups enjoyed the videos and activities used in the class and online via Blackboard and Facebook.

  - **From first experimental group:**

    Afrah: The most pleasing thing for me was the videos. I enjoyed the videos you used in the lectures. Honestly, I enjoyed them because they were really interesting and beneficial. I remember that in Unit 4 there were videos in each teaching method we studied, and after every video we had the activity and then the discussion… I cannot forget that when we watched the video about the negative teacher and how he made his class feel bored, then we watched the other video about the positive teacher and how he made his class feel active and energetic, then you gave us an activity about it, and we made a comparison of the two different situations before we discussed it … I really really enjoyed that.

  - **From the second experimental group:**

    Ruqaiah: Yes, the teaching method is great for me. I like it because it includes many interesting methods; for example, the discussions,

working in groups, and online activities through Facebook. Also, I like the videos. They were very interesting and were never boring.

- 8 from 12 students in the first experimental group agreed that the teaching method made them assume more responsibility and encourage them to exert more effort in their studies.

  - **From the first experimental group:**

    Abeer: I am going to choose the Blended Learning Group using Blackboard... because of all the advantages which have been mentioned and also because if I study using face-to-face learning alone, I will not be able to concentrate during the course. I will only concentrate just before the exams. But if I choose the blended Learning method, this method will encourage me to study during the whole course and not only before the exams, so I will be able to discuss at anytime during the course because there is communication… we can discuss about certain subjects related to the course ... we will always be up-to-date... I can ask any question at any time even when I would be at home….

- 7 from 12 students in the first experimental group agreed that the teaching method helped them understand the content of the course.

  - **From the first experimental group:**

    Omar (researcher): What do you think, Rabiaa? What are you going to choose? Blended learning method or face-to-face learning method?

    Rabiaa: I think I am going to choose the Blended Learning method using the Blackboard because this method helped us understand the content of the module better and because of all that I have already mentioned about the positive points of using this method.

- 9 from 12 students in the first experimental group and 7 from 11 students in the second experimental group stated that the teaching method in this module (304) is a new method and unique to this college.

  - **From the first experimental group:**

    Ok then, can I hear from you Rawan? The same thing, can we start with the teaching method? What do you think?

    Rawan: I think the teaching method was very special, and that is because we never studied before using this new method in this college. And now there is face-to-face learning and also online learning ... and both of these methods have advantages ..

    Omar (researcher): What kind of advantages .. can you tell us?

    Rawan: In the face-to-face session, there were different teaching methods which made us keen to participate such as discussions, working group, videos, and not only lectures. In addition to that, there was learning through the Blackboard and this was really a very effective system and easy to use even though it was the first time for us to use it ... I really enjoyed that because I can keep myself up-to-date about the module when I am at home or anywhere... also, it gives us a good chance to communicate with the other students in the same course and get to know them more ..

  - **From the second experimental group:**

    Omar (researcher): Ok Fatima, the teaching method first please. What do you think?

    Fatima: Frankly, I liked the teaching method in this course because I think it involves a variety of methods like discussions, working in groups, using Facebook, and all of these methods are interesting and not boring.

- 9 from 12 students expressed their admiration for the Blackboard tools which motivated them to learn. And they also agreed on the simplicity of the design of the General

Teaching Method Course (304) in Blackboard, for it was easy for them to reach any tool and any subject related to the course.

Shoroq: I like the teaching method that you used in this module.. I like it very very much mainly because of the Blackboard. I think we are the first group in this College to use this system in education. I like this great system because it includes very effective tools which motivate me to be active in this course, and communicate with the instructor and other students using the communication tools and to participate in the discussion topics via the discussion tool. Also, the self-assessment tool, chat, working together in online groups in the Blackboard, the useful links tool, I liked them all. At the beginning of the semester, I had difficulty using the Blackboard, but after sometime it has become simple and easy to use. I hope that we use this system in other courses of this College.

- All 9 students in the control group agreed that the discussions, activities and working in groups, presentation and videos conducted in class were very effective and made them more interactive in the classroom.

  - **From the control group:**

    Asmaa: I like the teaching method because it makes us students interactive in class, like what you did with us.

    Omar (researcher): Give me an example, Asmaa, of what you liked about the teaching method of this class?

    Asmaa: Discussions and working in groups. I like any kind of teaching method which makes the students become involved and active in class, and not only listen to the instructor.

    Hessah: The teaching method was excellent. I liked your presentation, in that it contains sounds and images, flash and videos. These things make me focused in the classroom.

5.5.2 The positive comments of the content of the course (304) according to the students' points of view

- All students who were interviewed in the three groups stated that the content of the course included important information for them as student teachers and that they will benefit from this information in the future. They also said that the content was organized, and for students of the two experimental groups, they have also expressed their admiration for the availability of content online on either Blackboard or Facebook.

  - **From the first experimental group:**

    Omar (researcher): Ok Yasmeen, what about the content of the course?

    Yasmeen: The content was very well-organized.. yeah and I frankly benefited from the content.. and of course it will be helpful for me when I become a teacher one day. And also, I liked the activities that you set up in the session, they were really interesting for us and were definitely not boring.

  - **From the second experimental group:**

    Zainab: Excellent content, very useful for us, I liked the slides presentation you presented in the class and also uploaded onto Facebook, very organised and clear

    .

  - **From the control group:**

    Bashayer: I benefited much from this course content as a student teacher, and now I think when I graduate I will know how to deal with my students because of what we studied in this course.

5.5.3 The positive comments of Instructor's Support of the course (304) according to the students' points of view

- All 12 students in the first experimental group and all 11 students in the second experimental group expressed their satisfaction regarding the continuous support and encouragement by their course instructor (researcher) through the training course on how to use the Blackboard system and through the quick replies to students' submitted questions and inquiries whether via the Blackboard or Facebook.

- **From the first experimental group:**

  Yasmeen: The course instructor was very cooperative .. and the most striking thing we found different between him and the other instructors in the College is that we can find him at anytime if we want to ask anything relating to the course! I mean by means of the Blackboard through the communications tools, we just put there our questions and then we find the instructor's quick reply almost immediately. But with the other instructors, we can only find them in their office inside the College when we need to ask them anything.

- **Another student in the first experimental group:**

  Al-Anood: At the beginning of this course, I was thinking of withdrawing from it because I was afraid of this new teaching method, and I thought maybe I cannot continue because this new teaching method requires certain skills. But I said to myself let me wait three weeks then I will decide whether to continue or withdraw. Then, with your support on how to use the Blackboard, and with my group's help, I learned how to use the tools of the Blackboard, and after about 4 weeks of this course, I have found it very easy to use.

- **From the second experimental group:**

  Noor: I like the communication between me and the instructor and between me and the students in the class. I mean the nice thing is that the communication in this course is very easy. By that I mean we can communicate with each other at any time we want, but in other courses in this college if I want to communicate or talk to the instructor, I have to go to his office, and if I do not find him, then I have to go on some other day to his office and wait for him if I want to talk to him about anything related to the course, or I might have to wait until the next lecture to speak to him! But in this course, as I said, communication is very easy and convenient.

5.5.4 The negative comments about the Course (304) according to the students' points of view:

- 7 from 12 students in the first experimental group, 7 from 11 students in the second experimental group, and 6 from 9 students in the control group agreed that the content of the course is big and contains a lot of information.

  - **From the first experimental group:**

    Omar (researcher): Ok Rawan, what about the content of the course?
    Rawan: The content was good but at the same time it would also have been possible to have only a little bit of content with enough information.

  - **From the second experimental group:**

    Al-Anood: Honestly, Mr. Ghaith, the content was very heavy and long.
    Omar (researcher): Can you tell me how?
    Al-Anood: It included a lot of information. Yes, it's useful information but at the same time I think the content is too big.

  - **From the control group:**

    Omar (researcher): What about the content?
    Sara: Useful, but it is quite huge and includes too much information.

- 2 from 12 students in the first experimental group, and 2 from 11 students in the second experimental group stated that the work required of them in this course is too much, especially the online discussions.

  - **From the first experimental group:**

    Yasmeen: About the negative aspects of this method, there are not too many negatives, but it takes more time because I need to reply to all the topics, and there are many students participating in the discussion board, and before that I need to read all the students' comments before I can reply and give my opinion on the topic.

- **From the second experimental group:**

  Bashayer: Sometimes, I feel that I am under pressure because we have a lot to do in this module, not forgetting the other modules in this semester.

- 2 from 11 students in the second experimental group preferred to use VLE instead of Facebook in Education.

  Omar (researcher): Any negative thing(s) about the teaching method?
  Yasmeen: hmmm… nothing, but I think it will be better to use a virtual learning environment instead of Facebook because I think such an environment is meant for teaching and learning online but Facebook is a social networking site, I mean I go to Facebook for social reasons not for study, I do not know!.. But other than that it is still a very good idea for us to communicate and use the online discussion while we are at home.

- 2 from 9 students in the control group had difficulty meeting the instructor outside his office hours, and they expressed their wishes that the instructor uses in this group the same method of teaching which has been used with the other groups (experimental groups). Because according to them, these methods (blended learning) are characterized by the use of communication tools.

  Omar (researcher): Ok Hessah, what about the instructor? Anything negative or positive?
  Hessah: You collaborated with us, but sometimes I cannot find you in the college if I need to talk to you because I have another lecture at the same time as your office hours. I talked to some of my friends who registered with you in the other group with the same module, and they told me that you communicate with them online. Indeed, I wish you were using the same method and communicating with us online as with the other groups, because it will be easier for us to find you, and this matter about not being able to find you is the same for most of the instructors in this College.

5.5.5 Results of the question submitted to the students at the end of the interview:

If in the second semester there is another course to be followed using blended learning – the same method used in the General Teaching Method Course (304) for the two experimental groups – and another course to be followed through the face-to-face learning method alone - the same method used for the control group, what would you choose and why?

- 11 from 12 students in the first experimental group preferred the blended learning using Blackboard method over the face-to-face learning method due to the advantages and positive aspects they have already mentioned.

- 8 from 11 students in the second experimental group preferred the blended learning using Facebook method over the face-to-face learning method due to the advantages and positive aspects they have already mentioned.

- 1 from 12 students in the first experimental group preferred the face-to-face learning method over the blended learning method for family reasons (she said that her family forbids her to use the internet as happened in this course).

  Molook: I would like to choose the blended learning .. but I will have to register in the face-to-face one because of family rules! (no internet!)

- 1 from 11 students in the second experimental group preferred the face-to-face learning method over blended learning for family reasons (she said that her family forbids her to use Facebook as happened in this course).

  Fatima: Unfortunately, I have no choice, I have to choose face-to-face learning because my family forbids me to use Facebook as I've explained to you, that's why I could use Facebook in this course but only here in the College.

- 2 from 11 students in the second experimental group preferred the blended learning method using VLE instead of Facebook, but if there have to choose only one from the two (from either blended learning using Facebook or face-to-face learning alone), then they will opt for the blended learning method using Facebook.

- 5 from 9 students in the control group preferred the blended learning method over the face-to-face learning method alone due to the advantages and the positive aspects of the former.

> *Asmaa: I will choose the blended learning group. My friend registered in the other group with you and you teach that group using Blackboard. I have seen with her how easy for any student to discuss online with other students and with the instructor. And I like this method, so I will choose the blended learning group.*

- 2 from 9 students in the control group preferred the face-to-face learning method over the blended learning method, because they do not want to try any new method of teaching, and they cannot decide until they have tried out the new method.

> *Bashayer: I think I am going to choose the face-to-face group because I do not want to try something new.*

- 2 from 9 students in the control group are not sure which method they are going to choose, but they mentioned that they may choose the blended learning method because there will still be meeting inside the class involving face-to-face sessions.

> *Anfal: It will be difficult for me to decide which group I am going to choose because I have never been taught by the blended learning method, but the thing that makes me confident about it is that there will still be meetings in the classroom as well, which gives me reassurance; and this may be a reason to go for the blended learning group.*

In this chapter, I used SPSS to analyse the quantitative data and to do a thematic analysis of the qualitative data. I started with a verification of dependency of the study data on the normal distribution using the Kolmogorov-Smirnov Test. Then, a Chi-square test and F-test were used to test the similarity of the experimental and control groups in terms of the control variables. And to test the study hypotheses, a MANOVA test was used. MANOVA is a type of multivariate analysis used to analyse data that involves more than one dependent variable at a time. MANOVA allows us to test various hypotheses regarding the effect of one or more independent variables on two or more dependent variables. It is often used to detect differences in the average (mean) values of the dependent variables between the different levels of independent variables. This is simply an ANOVA with several dependent variables. So, throughout this chapter, I was able to get answers to the research questions, which confirmed that the study hypotheses were valid according to the results. Once again, it proved that "using the method of blended learning in the General Teaching Methods Course (304) leads to better achievement and satisfaction for female student-teachers compared with the method of face-to-face learning alone".

Chapter 6: Discussion of Results

The current study is aimed at identifying the effect of the blended learning method on academic achievement and satisfaction of female students in the General Teaching Method Course (304), introduced by the Department of Curriculum and Instruction at the College of Basic Education in Kuwait. The results of the study will be discussed in terms of the causes behind the results in the following paragraphs within the framework of the relevant hypotheses.

6.1 Discussing results related to the first hypothesis

As seen from the quantitative data results, there was a significant difference in both mid-term and final tests between the first experimental group (studying through the blended learning method using VLE of Blackboard) and the control group (studying through face-to-face learning alone). However, there was no significant difference in both mid-term and final tests between the second experimental group (studying through the blended learning method using PLE of Facebook) and the control group, and there was also no significant difference in the practical test between the two experimental groups (each separately) and the control group.

Firstly, the reasons for the significant impact of blended learning teaching methods on the first experimental group compared to the control group with regard to the results of the mid-term and final achievement tests.

- **The teaching method helped students understand the content**: it was confirmed by the first experimental group students in the interviews that the teaching method of blended learning used in this course (304) helped them understand the content of the course and that this teaching method had good effect in facilitating, explaining and clarifying the course content. The literature on this subject supports this. For example, Noord et al. (2007) recognise that most features and benefits of blended learning have the potential and the ability to increase students' understanding of skills and new concepts learned through this kind of teaching method. Also, Shafer, Lahner and Calderone (2002) conducted a study on the effectiveness of using a web-based teaching method with students at the University of Texas. The results revealed that

Internet use is positively correlated with the level of student achievement, and helps in the development of student skills and even improve their ability to study. Marra et al. (2004) found that the discussions lead to clarifying information and linking ideas in terms of students. And clarifying information and understanding course content are what students of the first experimental group highlighted in the interviews. Namely, the teaching method used in this course (304) and especially the discussions which took place, either in class or in the VLE of Blackboard, had both helped them save on study time for the mid-term and final exams. As the students put it, they did not need any more intensive study on the 'test night', because if the students had understood the content, they would not need much time to study before the test.

- **A teaching method that motivated and engaged students:** The Blackboard system is a new system for all students in the College of Basic Education in Kuwait, and no previous group in this college had ever studied via blended learning using Blackboard or any other VLE. So, students of the first experimental group were the first group in the College of Basic Education in Kuwait to study for an entire semester using the Blackboard system. This system made students in the first experimental group feel as if they have distinguished themselves from others because unlike other students they used a new system in the college for the very first time. This engaged students and motivated them to learn and spend much time in the use of the Blackboard system tools, to be in touch with everything related to the concepts and information of the course (304). This is what the students confirmed through their discussion in the interviews; they said that the teaching method using Blackboard motivated them and made them assume more responsibility, let alone encouraging them to exert more effort in their studies. And because of this, there was a tangible and positive impact on the achievement test scores from the mid-term and final tests for the first experimental group compared with the control group. And if we go back to the literature and studies on this subject, we find that it supports precisely this point. In a study carried out by Deneui and Dodge (2006), it tried to determine the effect of the use of Blackboard system tools for long periods and/or repeatedly on the results of students' achievement in a psychology course. The study sample consisted of 80 male and female students doing a course on Psychology who were taught by the traditional teaching method. Next, they were then taught through the Blackboard system such as lectures and assignments, communication tools, and discussion board. The researchers

followed the students through the tracking tool provided by the Blackboard system, and then the researchers examined the relationship between the frequency-to-use Blackboard tools and the performance of students in the exam. The study concluded that there was a positive relationship between the use of the Blackboard tools and the total score in the exam, and found that students who entered more into the Blackboard system got the best grades and achievement.

- **The teaching method increased the interaction:** the blended learning method in this course (304) has led to interactions among the students themselves, between the students and the teacher (me), students and the course content through various activities located in the classroom during class meetings and lectures. This was also done through the VLE of Blackboard, which provided students of the first experimental group the ability to acquire the concepts and information of the course (304) in a variety of ways. This is confirmed by Tang and Byran (2007) who found that the teaching method of blended learning leads to a higher level of interaction, communication and exchange of experiences between the teacher and the student, and among students through the tools of asynchronous and synchronous communication. This leads to increased participation and integration of students in the learning activities and improves the learning outcomes (Tang & Byrane, 2007). A survey study has been confirmed by Anderson (as cited in Alqahtani, 2011) that blended learning is seen as providing better efficiency and effectiveness of training in the United States, and the results of the study indicated that 77% of U.S. organisations currently use blended learning, where the student or trainee receives guidance and counselling with reinforcement and feedback for his performance through blended learning and training.

- **Feedback from the Self-Assessment questions tool**: Also, there are some tools in the Blackboard system such as Self-Assessment questions tool which provide immediate feedback for every question in this tool. This feedback is not only to inform the student that her answer is correct or incorrect, but also to give him the reasons in case the answer was not correct, and encourage him with some positive words or give him more references if the answer was correct. As to whether this tool of the Blackboard has a positive role in keeping (retention) the information and

concepts of the course content in the students' mind, this was confirmed by some students of the first experimental group during the interviews, and thus this has had a positive impact on their achievement in the mid-term and final tests. In the context of the importance of feedback in the learning process, Sonak, Suen, Zappe and Hunter (2002) conducted a study about the effectiveness of feedback through the Internet, and they found that there is a direct positive relationship between the amount of time it takes students to receive immediate feedback through online exercise and activities and their performance and academic achievement. They found that the feedback via the Internet increased the academic achievement among students. Also, Lorraine (1999) discovered through a case study that feedback has helped students learn and apply the strategies of self-learning, aiding them to succeed in the online course.

Secondly, the reasons for the lack of statistically significant difference between the second experimental group and the control group in the mid-term and final tests:

The environment of Facebook is different from the environment of Blackboard: There was no significant difference in the mid-term and final tests between the second experimental group (studying through the blended learning method using PLE of Facebook) and the control group (face-to-face learning alone). However, the average score for the second experimental group exceeds the average score for the control group in the mid-term and final tests. I interpreted this to mean that the environment and the tools of Facebook are totally different from the environment and the tools of Blackboard. Facebook is a social network site and users usually go to Facebook to enjoy and communicate with friends or to spend leisure time but not to learn or study, and all that despite the existence of tools that can be employed effectively in the learning process as mentioned in the literature review chapter. That is what some students of the second experimental group mentioned during the interviews. For example, Yasmeen said: *"…. I think it will be better to use a virtual learning environment instead of Facebook because I think such an environment is meant for teaching and learning online but Facebook is a social networking site, I mean I go to Facebook for social reasons not for study, I do not know!"* On the other hand, Blackboard is a system originally intended to be used in teaching and learning, not to mention its various effective tools which serve the teaching and learning process through the internet.

I also interpreted this result in terms of **the characteristics of the students and their previous educational culture,** but as I have already mentioned in the chapter on education in Kuwait, the educational system in Kuwait is suffering from problems related to the curriculum and teachers. And all students in this study are Kuwaitis who have graduated from Kuwaiti schools, which tend to concentrate on memorising the information and even indoctrination without giving students the chance to play a central and positive role in the educational process, as the main role was for the teacher and not for the students. So, students in Kuwait are not used to learning and studying independently, something that the method of learning via Web 2.0 requires. And Kuit and Allen (2010) supported this when they noted that Web 2.0 affords the learner greater independence and autonomy when compared with more traditional approaches to learning. Therefore, the students in the second experimental group, which used Facebook as a personal learning environment, were not as effective in terms of their roles and participation. Whereas in the PLE, the student was require to manage and take control of his own page with Facebook, make some activities that are related to the content of the course, and share it with the rest of the students of the course. Here, there is an important role the student has to do which is to manage and take control of the learning process and environment. This is unlike the Blackboard system, which allows the teacher to manage and take control of the learning environment. Kuwaiti Students (in this study) are not accustomed to this new way of learning, for their role tends to be a negative one, mainly listening to the teacher and saving the information acquired.

I also think that some old Arab customs and traditions of some families of the students in this group were among the reasons for this result. As I mentioned in chapter 4, some students in the second experimental group were reluctant to use Facebook for family reasons. There are some families that still adhere to some old Arab customs and traditions (perception and view of women). These families will allow their young male students to use Facebook and other social network sites, but will still have reservations regarding their young female students. In the other experimental group (first group), I did not find this issue even though all female students in the three groups are similar in characteristics and come from similar Kuwaiti families. But what is different is that in the first experimental group students used Blackboard, which is especially designed for academic purposes. Facebook is a social network site, and some families still have reservations about letting their young women use it, even though anyone can manage the privacy settings to hide his/her information and pictures from people he/she does not wish to have access. And I have already explained, to all the

young female students in the second experimental group, I showed them how to manage their privacy settings on Facebook. Most of them already have an account on it, although some were not allowed due to family reservations.

Also, another reason to interpret this result is that the majority of educational applications on Facebook (Facebook app), which can be used in the course (304) for the second experimental group, were not able to support the Arabic language (at the time of the experiment), which did not serve or help the students of the second experimental group.

Thirdly, the reasons for the lack of statistically significant difference between the two experimental groups (each separately) and the control group in the practical test:

- **Different evaluation committee (different examiners):** Although the average scores for the two experimental groups (each separately) were higher than the average scores for the control group in the practical test, they did not reach the significance level. The researcher interpreted this to mean that there were different evaluation committees to evaluate and assess the students' performance in the practical test, where every group had different examiners. Each group had a committee consisting of two different professors from the Curriculum and Instruction Department in the College of Basic Education, and this maybe led to the examiners' bias with the results. This is unlike the objective tests that have been used in the mid-term and final tests of the course (304), where the results are not affected by changing the person who corrected the test, because the correct answer is only one, as in the questions with the multiple choices or in the true or false answers, making it more unlikely that teachers' bias affected the results.

- **First practical test for the students in the college**: The practical test in the General Teaching Method course (304) is the first of its kind for all students in the College of Basic Education. This may have led to the confusion among students in front of the committee (examiners). Of course, this varies from one student to another depending on the nature of his/her personality and ability to stand and talk or face the examiners.

6.2 Discussing results related to the second hypothesis:

As seen from the quantitative data results, there was a significant difference in the teaching method dimension of the satisfaction questionnaire between the two experimental groups (each separately) and the control group. And there was also a significant difference in the instructor's support dimension between the first experimental group and the control group, and no significant difference was found between the second experimental group and the control group. There was also no significant difference in the course content dimension between the two experimental groups (each separately) and the control group.

Firstly: reasons for the statistically significant difference in the satisfaction level of the teaching method dimension between the two experimental groups (each separately) and the control group:

- **Learning and communicating at anytime from anywhere:** One of the most positive points from the perspective of students of the two experimental groups, which they reported during the interviews, is that the teaching method in this course (304) has allowed them the opportunity to learn, participate and to be in touch with everything related to this course at any time and from any location, as well as being able to be in touch with the instructor and the rest of the other students in this course (304) at any time and from anywhere through the online communication tools. This is what I noted through the interviews. This was first positive thing that all the students in the two experimental groups agreed on. The two experimental groups of students have seen and noted the difference on this point between this course (304) and the rest of the courses in the same college. They said that in the other courses in the college, there is no communication related to the course or with the instructor or with the other students outside the class. This has caused some problems for the students which they admitted to during the interviews. For example, if they need to ask or if they have inquires about anything related to the course, they have to wait until the next lecture. In this context, Almousa (2005) mentioned that one of the most important benefits of blended learning is to provide an interactive learning environment to enable the student to interact with the course content, the instructor, the other students, and to encourage them to learn at any time from any place. Also, Heckman and Annabi (2005) mentioned that the most important advantage of blended learning is

asynchronous learning, and this means that the students can learn the same material at different times and locations (any time from any place). In addition to face-to-face learning, the learner can have access to the course at a time that is convenient, not just during the specific 2-3 hour period that is set for a traditional course.

- **Online discussions give more time to thinking before replying:** Also, from what the students in the two experimental groups seem to agree upon, the online discussions conducted in this course via the Blackboard or via Facebook gave them a greater chance and more time to think and be more careful with what they say. It gave them the opportunity to organise their ideas before replying and participating in the subject under discussion, or before replying to posts from other students. Marra et al. (2004) seem to agree that the online discussion helps with critical thinking among students. And I have been noted through the posts by students in the online discussion via Blackboard and Facebook. I also found that the level of students' debate through the Blackboard or Facebook was better than the level of debate when they are in the classroom. And this point has contributed to students' level of satisfaction with the blended learning teaching method.

- **Some students are more comfortable with participating in online discussions:** It was also confirmed by some students from the two experimental groups during the interviews that the online discussions conducted either through the Blackboard system or through Facebook have given them more confidence in participating in online discussions, because they do not like to talk or discuss in front of people, especially for the shy students. Moreover, because of the culture in Kuwait where some old traditions are based on the separation between the male and female in most aspects of life, some female students in this course do not want shame if they have to debate with a man (instructor of the course). They prefer to discuss and share ideas with females only because they feel more comfortable if they work with the same gender. So, this kind of online learning and discussion via Blackboard or Facebook has come to be a viable solution for this kind of problem. So, they like this course (304) because it does not to make them feel any kind of embarrassment or shame when participating or discussing the issues behind a computer. This point may have contributed to the increase in the students' satisfaction level about the blended learning teaching

method. Belcher (1999) and Kern (1995) have also discussed this subject and stated that the online discussions are more likely to benefit shy, introverted and reticent people.

- **Enjoy the videos and activities:** Students tend to enjoy the videos and various activities in the classroom and via Blackboard or Facebook, and this is what was also mentioned by the students during the interviews. They found that these interactive activities and interesting videos have broken the traditional routine of lectures being followed in the rest of the other courses at the College of Basic Education. Al-khoder (2008) has investigated the topic of interactive activities supported by multi-media using VLE of Moodle in the College of Social Sciences at Kuwait University. The study found that there are significant differences in student satisfaction for the experimental group which studied the course using the interactive activities supported by multi-media with VLE of Moodle. Both Martin and Bramble (1996) confirmed that students prefer a learning process based on the activities and interaction between the teacher and students or students with each other together with educational multi-media instead of just listening to lectures.

- **Animation and emoticons:** Using some animation and emoticons to enhance body language on topics of the online discussion can attract and create a sense of suspense for students to participate in the online discussions. As noted by the researcher, the use of these animation, pictures and emoticons by some students in the topics of discussion, especially in the first experimental group through Blackboard, has attracted students to enter the discussion board and participate more rather than in topics that have not used these animations and pictures.

Secondly: the reasons for the statistically significant difference in the satisfaction level of the instructor support dimension between the first experimental group and the control group:

- **Communication tools of the Blackboard:** Maybe the reason has to do with the large number of communication tools which are available in the Blackboard system for the student and the instructor of the course. There is property to send messages, send e-

mail from inside the Blackboard system, live chat rooms, as well as the ability to ask through the department general questions to the instructor of the course using the discussion tool.

- **The intensive training course** was provided for the first experimental group in the first week of the course and had a positive impact in facilitating the use of Blackboard tools for the trainees.

- **Blackboard and Facebook apps allow for a quick reply:** I downloaded the app of the Blackboard and the app of Facebook onto my iPhone, and then used them to respond to inquiries and questions sent by students of the two experimental groups. And this was the reason for the satisfaction among students over the speed of responding to their inquiries and questions.

- **The second experimental group did not benefit from the direct communication tool:** There was a good level of satisfaction over the instructor's support as indicated by students in the second experimental group through the interviews. And although the average scores in the instructor support dimension of the second experimental group were more than the average scores of the control group, this difference did not reach significance level. The researcher interpreted it to mean that because most students in the second experimental group did not agree to add the other students (their colleagues) to their account on Facebook as friends for the reason that they do not want them to see or look on their personal information, the consequence is that they did not benefit from the live and direct chat tool on Facebook which requires adding the person to chat with as a friend. So, they could not use the direct communication tool in Facebook with the other students of the course or with the instructor of the course. While in the first experimental group, there was no problem using the direct communication tools because of the many communication tools provided by the Blackboard system such as the live chat room as a key tool for direct and live communication.

Thirdly: the reasons for the lack of statistically significant difference in the satisfaction level of the course content dimension between the two experimental groups (each separately) and the control group:

- **Large amount of information:** Although the average score in the course content dimension for the two experimental groups (each separately) was more than the average score of the control group, this difference did not reach significance level. The researcher interpreted that as referring to the large amount of information and concepts contained in the General Teaching Method Course (304). This was confirmed by all the students in the three groups through the interviews who all agreed that this was one of the most negative aspects from their viewpoint.

- **A very big and traditional book:** The Department of Curriculum and Instruction at the College of Basic Education obliged all students who study this course (304) to buy a very big book with more than 400 pages to be the main textbook of the course (304). The researcher found this book to be written in a rather traditional way which means that it does not contain interactive activities and enough examples.

The current study is aimed at identifying the effect of the blended learning method on academic achievement and satisfaction level of female student-teachers in the General Teaching Method Course (304) at the College of Basic Education in Kuwait. The results of the study have been discussed in this chapter in terms of the causes behind the results and in relation to the first and second hypothesis of the study. In this chapter, I have interwoven the quantitative data (students' scores in the achievement tests and satisfaction questionnaire) and qualitative data (students' opinions of the course during the group interviews) in order to understand the results of the study more deeply and to get more solid answers to the research questions. It also helps explain why and how I have been able to obtain the results of this study.

Chapter 7: Summary of Results, Conclusions, and Recommendations

This chapter provides a summary of the study and draws several conclusions in the light of those results as well as making recommendations and suggestions for further research.

7.1 Summary of the purpose and questions of the study

The study has identified the effect of using the blended learning method on academic achievement and students' satisfaction in a university course for female students at the College of Basic Education in Kuwait. The key problem of the study can be summarised in two main questions:

3. **What is the effect of using blended learning in the course (304) on academic achievement of the students, as compared to face–to–face learning alone?**

4. **What is the effect of using blended learning in the course (304) on students' satisfaction, as compared to face–to-face learning alone?**

I have addressed the study questions through the mixed method research approach using the Explanatory Sequential Design in order to determine the nature and objectives of the study. In this approach, I started with the collection and analysis of quantitative data (using a quasi-experimental approach), which has priority for addressing the two questions studied above, and then followed it up with the collection and analysis of qualitative data (using group interview) to help explain the quantitative results.

The researcher identified a study sample of 96 female students at the College of Basic Education in Kuwait. The sample consisted of the first experimental group (n = 39) who followed the course (304) by blended learning using VLE of Blackboard, the second experimental group (n = 31) who followed the course (304) by blended learning using PLE of Facebook, and the control group (n = 26) who followed the course (304) using face-to-face learning alone.

There were positive advantages of having an all-female cohort. For example, because of the cultural context, it is often more difficult to engage young women students with an issue

such as change, and this made me challenge myself to think more deeply about how I can succeed with all-female students when using this new approach to teach them.

7.2 Summary of the study variables

The independent variable of the study was the teaching method of either the blended learning method for the experimental groups or the face-to-face learning method for the control group. While the dependent variables were academic achievement (as assessed in the course's mid-term, final and practical exams), and students' satisfaction (assessed by the questionnaire, giving a total mark and 3 sub-marks in reference to the students' satisfaction about the teaching method of the course, the content of the course, and the instructor's support in the course).

The control variables of the study were the students' previous academic records (GPA) for both college and high school, the students' use of computer and the internet, the students' academic disciplines (English, Art, Physical Education and Music), and the students' marriage status.

7.3 Summary of results from the study:

Results related to the first question of the study

There was a significant difference in both mid-term and final tests between the first experimental group (studying through the blended learning method using VLE of Blackboard) and the control group (studying through face-to-face learning alone). However, there was no significant difference in both mid-term and final tests between the second experimental group (studying through the blended learning method using PLE of Facebook) and the control group, and there was also no significant difference in the practical test between the two experimental groups (each separately) and the control group.

Results related to the second question of the study

There was a significant difference in terms of the teaching method dimension of the satisfaction questionnaire between the two experimental groups (each separately) and the control group. And there was also a significant difference in terms of the instructor's support

between the first experimental group and the control group, and no significant difference was found between the second experimental group and the control group. There was also no significant difference in terms of the course content between the two experimental groups (each separately) and the control group.

7.1 Validity and reliability of the results

A specialised committee comprising a small group of academics from the Department of Curriculum and Instruction at the College of Basic Education have already prepared and checked the validity and reliability of all the achievement tests of the Course (304). And all types of questions in both mid-term and final tests of the course were objective test questions (MCQ, true-false, matching). This type of questions has right or wrong answers only. This means that students' response to this type of questions can be evaluated objectively. Also, it can be seen how the results of the qualitative data supported the results of the quantitative data in terms of what students in the first and second experimental groups mentioned in the interviews, namely, that the teaching method of blended learning used in this course (304) was very effective in facilitating, explaining and clarifying the course content as well as helping them save up on study time for the mid-term and final exams. As they put it, they did not need any intensive study on the 'test night'. This is about the validity and reliability of the results from the first question of the research (students' achievements).

As to the results of the second question of the research (students' satisfaction), I have explained in detail in the methodology chapter how I checked the validity and reliability under the supervision, guidance and cooperation of my Supervisor and some other academics at the College of Basic Education. It can also be seen how the results of the qualitative data supported the results of the quantitative data in terms of what students in the first and second experimental groups mentioned in the interviews about the teaching method of blended learning used in this course (304), and how they were very satisfied with this particular teaching method. The results obtained by the quantitative methods (satisfaction questionnaire) matched up with the results obtained from the qualitative methods (interviews). This is confirmed by the data from both the satisfaction questionnaire and interviews. The statements on the first dimension of the satisfaction questionnaire (the teaching method) showed greater satisfaction among the two experimental groups than the control group. This dimension contained statements such as the following: I enjoyed the

teaching method in this course; the teaching method in this course helped me understand the content; the teaching method encouraged me to exert more effort in studying. And it is to be noted that the students in the first and second experimental groups expressed their views over such statements during the interviews.

For the group interviews, I consulted the interviewee-students about a suitable and comfortable time and location for them to conduct the interviews in order to avoid any unwanted influence on their response during the interviews. All of them agreed to conduct the interview at the same time as the weekly lecture on the General Teaching Method Course (304), and to have it in the same room of the weekly lecture as well. I started the interview with an introduction as to the purpose of the interview. And I reminded them about the importance of this research, assuring them that all information will be translated to English and will be treated as fully confidential. During the interviews, the same method was used to ask the questions and provide an opportunity for all students to express their views, before asking them again to confirm the accuracy of the information they have provided, and this was done in all the interviews to be sure that all students have responded to the interview questions under the same conditions. All the interviewee-students accepted and agreed to use the digital voice recorder during the interviews to help with transcribing their responses.

7.2 Limitations

The results of this research can be generalised within the limitations of the undergraduate female student-teachers at the College of Basic Education in Kuwait during the second semester of the academic year 2009/2010.

If I were to do this study again, I would implement the following:

- I will compare public college students to private college students.
- The study sample will be made up of both male and female students in order to compare them, and that in spite of the positives that I found in this study when working with all-female students.
- I would carry out my research for a longer period of time (one full academic year instead of four months) and measure the achievement of the students more than once with a certain period of time between them.

- I will not oblige students to purchase any specific book to be the main source-text of this course as happened in this study when the Department of Curriculum and Instruction at the College of Basic Education obliged all students in this course to purchase a particular book as the main source-text.

7.3 Contribution

- To my knowledge, only a very few Arabic and Kuwaiti researchers have tackled the issue of blended learning using VLE and PLE. Thus, the current study constitutes a new addition to Arabic and Kuwaiti studies relating to the effect of blended learning on the academic achievement of female university students at Education College.
- Aligning the project with the recommendations and solutions to the education crisis in Kuwait as provided by Tony Blair and other specialists in the field of education in Kuwait.
- Aligning the project with the desire of Kuwait's Ministry of Education and the Public Authority for Applied Education and Training to use and apply blended learning in education.
- Contribute to the use and application of blended learning on student teachers whose preparation is now a key focus of the State of Kuwait. And as pointed out by some recent studies regarding weaknesses in the programmes to prepare them, one of which is a lack of use of modern methods in their teaching in the College of Basic Education under the Public Authority for Applied Education and Training or in the College of Education at Kuwait University.
- Kuwait University seeks to discover the effects and results of adopting blended learning on different electronically-developed courses using Blackboard. And this study will provide good information on the impact of the use of blended learning as a teaching method on the academic achievement and satisfaction of college students, especially female ones.
- This study is to be considered in relation to other studies (especially Arabic ones) which dealt with the impact of two methods of blended learning in comparison to the face-to-face learning method alone (blended learning method using VLE of Blackboard, and blended learning method using PLE of Facebook) within one

experimental study. Most other experimental studies on education have focused on only one method of blended learning.

- The study will provide positive information for academic staff in colleges in Kuwait, and this information may also help them change their ideas about using new teaching methods such as the blended learning method. From the experience of the researcher in the practical field of this study, it was found that the majority of the academic staff at the College of Basic Education are still using the traditional methods of face-to-face learning, without making use of the benefits and advantages of the blended learning method in their teaching. So, they still play the key role in the teaching and learning process, and students still need to listen to them in class without being given the chance to participate in the activities or discussions, whether online or offline (in class).
- This study proved that using a blended learning approach would make the studies easier and more comfortable for Kuwaiti female students.
- I employed the ADDIE instructional design model with some modifications in order to suit the needs and characteristics of the students in the course (304), as well as the teaching method to be used (blended learning using VLE of Blackboard and PLE of Facebook).

7.4 Recommendations and suggestions

In the light of the attained results and what was found in the literature reviews, the researcher recommends and suggests the following:

- It is necessary to pursue the use of blended leaning methods using virtual learning environments during university education in Kuwait so as to benefit from the advantages of both face-to-face learning and online learning. This will enable making use of the technologies and facilities as well as exploring the possibility of establishing and spreading the courses, conducting activities and exercises using modern communication tools.
- It is necessary to encourage and train the teaching staff of universities and colleges in Kuwait on how to use the virtual learning environments such as Blackboard and how to benefit from the latest technologies.

- Required facilities for teaching through blended learning using virtual learning environment whether material or technical support should be provided in order to improve the teaching process.
- It is necessary to establish eLearning centres in colleges and universities in Kuwait, and to provide specialised and qualified educationalists in ICT so that the instructional course design process will be done on an accurate educational basis using an accurate scientific method. This is to be done through the process of transferring solid theoretical knowledge into active interactive subjects for students, and not being satisfied only with the outer design of the course content.
- New courses ought to be developed in the colleges of education about blended learning for the students' teachers and to train them on how to design electronic courses using VLE on a correct scientific and educational basis.
- Training courses are to be offered to the academic staff and to the university students' teachers on how to use virtual learning environments in teaching and learning and how to deal with its tools.
- Electronic publishing methods in universities and colleges should be introduced through attempting to transform the university library into an electronic library which would benefit all students.
- Similar studies to this one should be conducted on other courses being provided in the College of Education.
- Studies should be carried out on the attitude and obstacles that teachers face when using the blended method in teaching.

7.5 Conclusions

This chapter has provided a summary of the study in terms of its aims, research questions, research design, study variables, study results, limitations, contributions as well as recommendations and suggestions for further research.

In light of the results of the current study, policy-makers, curriculum designers, teachers and teacher trainers can benefit from these findings, which demonstrated the effectiveness of blended learning on students' achievement and satisfaction. They should

seek to adopt these modern teaching methods in education, let alone making decisions in this important issue that would contribute to the development of education in Kuwait.

Policy-makers in Kuwait should look at the current status of education and why there is a need for change. The current status is not satisfactory because the curriculum, methods of teaching and assessment methods in Kuwaiti schools and even in Universities and Colleges are still dedicated to indoctrination, receiving and saving information, but do not yet allow for much dialogue, discussions and exploratory active learning. The key role in the educational process is that of the teacher, while the student is still a passive listener to his/her teacher without any positive participation.

The shift in the education process, from mere indoctrination by the teacher and the process of receiving and saving information by the student to an interactive dialogue process between the student and the teacher, and between the students themselves, is one of the most important issues that policy-makers, curriculum designers, teachers and teacher trainers should focus on, put into consideration, and seek to apply it in the field of education because of its benefits and advantages to student learning.

The roles of both teacher and learner must change. The learner ought to become active (not passive) and be the centre of the educational process. And the teacher ought to become more as advisor and facilitator. And the blended learning environment supports this and develops the student's ability to think and letting the student take responsibility, motivating him/her towards learning through a diversity of methods and technological tools (such as the tools of VLEs and PLEs) and make the role of the learner become more positive by participating in discussions and varied educational activities.

Education in Kuwait suffers from major problems that I have referred to in Tony Blair's critique of Kuwait's education system in chapter two. And some of the proposals and solutions provided by many Kuwaiti educational specialists and by Tony Blair have focused on the importance of Kuwaiti teachers' preparation and on the use of e-learning and blended learning, benefiting from its advantages to the process of teaching and learning, and to the teacher preparation programmes at the College of Education. And because I used blended learning in my teaching with student-teachers in one of the specialised courses on teacher

preparation, I can say in addition to what I have mentioned in the contribution section that I am also to a certain extent (in this work) trying to fulfill a key aspect of the national mission.

> *Al-Anood: At the beginning of this course, I was thinking of withdrawing from it because I was afraid of the new teaching method, and I thought maybe I cannot continue because this new teaching method would require certain skills of me.. and by nature I don't like change! But I said to myself, let me wait three weeks then I will decide whether to continue or withdraw. And the thing that reassured me is that we meet once a week face-to-face in the class in addition to learning via Blackboard.. and if there will be any difficulties, we (students) will let you know about it, and you (researcher) will explain to us in the face-to-face session what to do about those.. Then, with your support on how to use the Blackboard, and with my group's help in the class, I've learnt how to use the tools of the Blackboard, and after about 4 weeks of this course, I found it very easy to use.. in fact with this type of teaching method, I feel that I am free .. I mean that there are no restrictions in terms of the time and place to learn.. I can ask any question .. I can discuss .. I can participate in some online activities at any time from any place via Blackboard using my iPhone or laptop ..*
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> **A Student in the first experimental group**

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Appendices

Appendix 1: Approval letter from the Research Ethics Committee of Brunel University

Head of School of Sport & Education
Professor Susan Capel

Brunel UNIVERSITY LONDON

Heinz Wolff Building,
Brunel University, Uxbridge,
Middlesex, UB8 3PH, UK
Tel +44 (0)1895 266494
Fax +44 (0)1895 269769
www.brunel.ac.uk

Mr Omar Ben Ghaith
4 Wilmar Close
Uxbridge
Middlesex UB8 1AS

29th July 2009

Dear Omar

RE30-08 – Effect of blended learning on academic achievement and satisfaction of students in college of Basic Education, Kuwait

I am writing to confirm the Research Ethics Committee of the School of Sport and Education received your application connected to the above mentioned research study. Your application has been independently reviewed to ensure it complies with the University Research Ethics requirements and guidelines.

The Chair, acting under delegated authority, is satisfied with the decision reached by the independent reviewers and is pleased to confirm there is no objection on ethical grounds to the proposed study.

Any changes to the protocol contained within your application and any unforeseen ethical issues which arise during the conduct of your study must be notified to the Research Ethics Committee for further consideration.

On behalf of the Research Ethics Committee for the School of Sport and Education, I wish you every success with your study.

Yours sincerely

Dr Simon Bradford
Chair of Research Ethics Committee
School Of Sport and Education

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The Queen's Anniversary Prizes 2011

Appendix 2: Letter from my research Supervisor to the College of Basic Education

Head of School of Sport & Education
Professor Susan Capel

Brunel UNIVERSITY WEST LONDON

Halsbury Building,
Brunel University, Uxbridge,
Middlesex, UB8 3PH, UK
Telephone +44 (0)1895 267156
Fax +44 (0)1895 269805
Web www.brunel.ac.uk

Bahija E. AL-Behbehani

To: Dr. ~~Dalal Al-Hadhood~~
Dean of the College of Basic Education

29th June 2009

Dear Dr. Al-Hadhood

This is to confirm that Mr Omar Ghaith is currently a doctoral student working with me on his PhD. Mr Ghaith is exploring the effects of using 'blended learning' approaches in college teaching, and intends to conduct the majority of his fieldwork with you in Kuwait at the College of Basic Education. In this, he will be working within my academic guidance, and his fieldwork is scheduled to extend over the second semester of the next academic year, from the start of February 2010 to the end of June 2010. His approach is quasi-experimental, and his fieldwork covers this entire semester.

I would be most grateful if it is possible for him to work with, and teach, three groups of female students at the college. Ideally, this would be the General Teaching Methods (304) within the Curriculum and Instruction Department. For this, it is important that he is able to use a data projector system in order to use and illustrate developments of ICT within his teaching. If possible, it would be good that he has use of a desk, computer and access to the internet during his teaching and research. It is also an important part of his work that he can access and use both the high school and college GPAs for the students he's teaching, held within the College's admissions office. Mr. Ghaith intends to explore the effects of blended on students' achievements and their levels of satisfaction with this way of working, and intends to design appropriate assessment methods through which to do this.

Mr Ghaith is a highly valued student in Education at Brunel, and we are looking forward to some successful outcomes from his field work. I understand that the requests we make are quite specific, but I do hope you are able to help us in this way - it will mean a great deal in terms of Mr Ghaith's doctoral studies.

With all best wishes,
Yours sincerely

Mike Watts
Professor of Education

Appendix 3: Letter of consent from the Dean of the College of Basic Education

THE PUBLIC AUTHORITY
FOR APPLIED EDUCATION & TRAINING.

الهيئة العامة
للتعليم التطبيقي والتدريب

1933/2009 : المرجع
8 - OCT 2009 : التاريخ
8/10/2009 الموافق

Date/ 5th October 2009

Dear/ Prof Mike Watts
Professor of Education – Brunel University

With reference to your letter dated on 29 June 2009, regarding allowing the student Omar Ghaith who is delegated to get the Master and Phd Degrees to have fieldwork for the experimental study that explores the effects of using blended learning approaches in colleges of basic education in Kuwait based on his thesis to have the PhD degree in Education, Kindly we would like to inform you that the College of Basic Education has agreed on your letter and it has no objection to apply on the syllabus of "The General Teaching Methods (304). Also, the college has no objection that Omar can apply, work with and teach three groups of female students with the same syllabus and that is shall facilitate all the requirements of study.

With all best wishes

٢٠٠٩/١٠/٨

Dr. Bahija E. Al-Behbehani
Dean of the College of Basic Education

P.o.Box 23167 SAFAT (13092) KUWAIT - Tel 2564960 Fax.2528915

Appendix 4: Letter to the Kuwait Cultural Office in London

Head of School of Sport & Education
Professor Susan Capel

Brunel UNIVERSITY WEST LONDON

Halsbury Building,
Brunel University, Uxbridge,
Middlesex, UB8 3PH, UK
Telephone +44 (0)1895 267156
Fax +44 (0)1895 269805
Web www.brunel.ac.uk

To: Dr. Bandar Alraqas
The Cultural Counsellor and Head of Kuwait Cultural Office
London

1st November 2009

Dear Dr. Alraqas

This is to confirm that Mr Omar Ghaith is currently a doctoral student working with me on his PhD. Mr Ghaith is exploring the effects of using 'blended learning' approaches in college teaching, and intends to conduct the majority of his fieldwork in Kuwait at the College of Basic Education. In this, he will be working within my guidance, and his fieldwork is scheduled to extend over the second semester next academic year, the six month period from mid-January 2010 to the end of June 2010. His approach is quasi-experimental, and the fieldwork covers the entire semester.

We have received permission from the Public Authority for Applied Education and Training, through the Dean of the College of Basic Education, Dr. Bahija Al-Behbehani, for Mr. Ghaith to undertake this research at the College (see attached letter).

Mr Ghaith is a highly valued student in Education at Brunel, and we are looking forward to some successful outcomes from his field work.

Yours sincerely

Mike Watts
Professor of Education

Appendix 5: Letter of consent from Kuwait Cultural Office in London

Embassy of the State of Kuwait
Cultural Office
London

سفارة دولة الكويت
المكتب الثقافي
لندن

10 نوفمبر 2009
GPA148

الأخ/ عمر بن غيث المحترم
مبعوث الهيئة العامة للتعليم التطبيقي والتدريب

تحية طيبة ،،، وبعد:

إشارة إلى خطابك الوارد الينا بالبريد الالكتروني في 2009/11/03 المتضمن طلب الموافقة بالقيام برحلة علمية للكويت خلال الفترة من يناير 2010 وحتى يونيو 2010.

نود إفادتك بورود خطاب المدير العام للهيئة رقم ف/2009/1080 بتاريخ 2009/11/10 المتضمن الإفادة بأن مدة الرحلة العلمية هي 3 أشهر ويمكن تمديدها إلي شهرين بطلب منك بعد موافقة الكلية والقسم المعنيين واللجنة العامة للبعثات.

نأمل الإحاطة بذلك والكتابة لنا بصورة عاجلة حول هذا الموضوع.

مع تمنياتنا لك بالتوفيق.

الدكتور بندر الرقاص
المستشار الثقافي ورئيس المكتب

Appendix 6: Letter to Kuwait University for developing a space for the Course (304) on Blackboard

Head of School of Sport & Education
Professor Susan Capel

Brunel UNIVERSITY WEST LONDON

Halsbury Building,
Brunel University, Uxbridge,
Middlesex, UB8 3PH, UK
Telephone +44 (0)1895 267156
Fax +44 (0)1895 269805
Web www.brunel.ac.uk

To: Dr. Anwar Alyatama
Kuwait University
PO Box 5969
Safat 13060
Kuwait

28 October 2009

Dear Dr. Alyatama

This is to confirm that Mr. Omar Ghaith is currently a doctoral student working with me on his PhD. Mr Ghaith is exploring the effects of using 'blended learning' approaches in college teaching, and intends to conduct the majority of his fieldwork in Kuwait at the College of Basic Education. In this, he will be working within my guidance, and his fieldwork is scheduled to extend over the second semester next academic year, the six month period from mid-January 2010 to the end of June 2010. His approach is quasi-experimental, and the fieldwork covers the entire semester.

I am most grateful for the help you have offered Mr. Ghaith, and the provision of access to Blackboard for use with his research activities. I understand that you are willing to allow some 30 or so students at the College of Basic Education to use this provision too – this will certainly advance Mr. Ghaith's research work with these students. Please accept my thanks for allowing this cooperation with this research study.

Mr Ghaith is a highly valued student in Education at Brunel, and we are looking forward to some successful outcomes from his field work.

Yours sincerely

Michael Watts.

Mike Watts
Professor of Education

Appendix 7: Information sheet and a consent form for the students

28 February 2010

Information sheet and consent form

I am a postgraduate research student from the School of Sport and Education at Brunel University. I am doing experimental research about the effect of using blended learning in teaching as compared to face-to-face learning alone through General Teaching Method Course (304).

Please take a few minutes of your time to read the objectives of this study, and then decide if you would like to take part in the study.

The study aims at the following:

- Identifying the effect of using blended learning in teaching on academic achievement in a university course for female students of Education College.
- Identifying whether blended learning method is suitable for female students in Education College, and identifying the difficulties facing students and affecting the level of their satisfaction about the course and its teaching methodologies.

**** Note: you can withdraw from the study in any time without penalty or any thing that may effect on your study of the course.***

□ I am happy to take part of this study.
□ I do not want to take part of this study.

Signature of Student:……..

Name of Student:……..……

Academic Department:……

Date:……

The Researcher
Omar Ghaith

Appendix 8: Mid-term Test of the Course (304)

اختبـار المنتصـف

كليـة التـربية الأساسية — مقرر طرق التدريس العام

قسم المناهج و طرق التدريس — مـدة الاختبـار : ساعة واحدة

الاسم: — **مجموعة رقم:**

أولا/ الاختيار من متعدد: **(9 درجات)**

اختاري الإجابة الصحيحة بوضع علامة (✓) أمام العبارة الصحيحة في كل مما يلي:

1. من الانتقادات التي تم توجيهها للمنهج بمفهومه التقليدي:

أ. ( ) الاهتمام بالنمو الشامل.

ب. ( ) عدم تعويد التلاميذ السلبية.

ت. ( ) اهمال الجانب العملي.

ث. ( ) كل من ب و ت.

2. من مظاهر ومميزات التدريس المعاصر:

أ. ( ) أن المعلم هو محور العملية التربوية.

ب. ( ) أن المنهج هو محور العملية التربوية.

ت. ( ) أن المتعلم هو محور العملية التربوية.

ث. ( ) أن المتعلم والمنهج هما محورا العملية التربوية.

3. من الخصائص الأخلاقية التي يجب أن تتوافر في المعلم الناجح:

أ. ( ) الصبر و اللين مع المتعلمين.

ب. ( ) الإلمام التام بالمادة و طرق تدريسها.

ت. ( ) الإخلاص في العمل و احترام التقاليد.

ث. ( ) كل من أ و ت.

4. "أن يكتب الطالب مذكرات للحوادث التاريخية المعطاة" يُعد هدفاً:

أ. ( ) معرفياً في مستوى التركيب.

ب. ( ) معرفياً في مستوى التحليل.

ت. ( ) معرفياً في مستوى التطبيق.

ث. ( ) معرفياً في مستوى الفهم.

1

5. **أن يُبدى الطالب استعداده للمشاركة في جماعة مدرسية تهتم بنظافة البيئة، يُعد هدفاً:**

أ. ( ) مهاريا.

ب. ( ) معرفيا.

ت. ( ) وجدانيا.

ث. ( ) عاما.

6. **جميع ما يلي من مستويات الأهداف في المجال المهاري عدا:**

أ. ( ) الملاحظة.

ب. ( ) الاستجابة.

ت. ( ) التجريب.

ث. ( ) الممارسة.

7. **التخطيط لتدريس وحدة (جسم الإنسان) في مقرر العلوم، يعد تخطيطاً على المدى:**

أ. ( ) الطويل.

ب. ( ) القصير .

ت. ( ) المتوسط.

ث. ( ) كل من ب و ت.

8. **من أدوار المعلم تجاه طلابه ما يلي:**

أ. ( ) المساهمة في الأنشطة المدرسية المختلفة.

ب. ( ) المشاركة في الدورات التدريبية وإجراء الدراسات التربوية والبحوث الإجرائية.

ت. ( ) اسكتشاف المواهب ورعايتها.

ث. ( ) كل مما سبق.

9. **أحد التصرفات التالية يعتبر تصرفا خاطئا في التعامل مع الطالب المشاغب:**

أ. ( ) البحث عن أسباب مشاغبة الطالب والتعامل مع كل سبب بما يناسبه.

ب. ( ) تحميل الطالب المشاغب بعض المسئوليات.

ت. ( ) أخذ الطالب المشاغب مباشرة إلى مدير المدرسة.

ث. ( ) جعل الطالب المشاغب في مقدمة الفصل حتى يكون تحت نظر المعلم وبالقرب منه.

ثانياً/ صح أم خطأ: **(9 درجات)**

ضعي علامة ☑ أمام العبارة الصحيحة (في المكان المخصص للإجابة)، وعلامة ☒ أمام العبارة الخاطئة مما يلي:

م	العبارة	الإجابة
1	اكساب المتعلم القدرة على الترتيب التصاعدي للأعداد (صياغة خاطئة لهدف سلوكي بسبب وصفه لنشاط عملية التعلم بدلاً من ناتج التعلم).	
2	من صفات المعلم الناجح التوقعات الإيجابية، ويُقصد بها تفاؤل المعلم بما سيحققهُ من نجاح ونتائج جيدة بالنسبة لطلابه وبالنسبة له على المستوى الشخصي كمعلم.	
3	"أن يكتب الطالب تقريراً عن البيئة من صفحتين". ماتحته خط يشير إلى معيار الأداء وهو يُعتبر من الشروط الأساسية للأهداف السلوكية.	
4	التعليم هو ثمرة التعلم وهو يكون مقصود أو غير مقصود.	
5	عملية التدريس عملية مقصودة ومحددة بإجراءات وهي أعم وأشمل من التعليم	
6	المادة العلمية تعتبر عنصر رئيسي من عناصر المنهج.	
7	حتى يتمكن المعلم من ممارسة مهنة التعليم يجب أن يكون محبوباً لدى طلابه	
8	الخبرة هي عملية التفاعل بين الفرد المتعلم وبين الظروف الخارجية في البيئة التي يستطيع أن يستجيب إليها وتؤدي إلى تغيرات سلوكية.	
9	الأنشطة التعليمية عبارة عن أدوات يستخدمها المعلم لتسهيل فهم الدرس للطلاب	

ثالثاً/ المزاوجة: **(7 درجات)**

القائمة (أ) من الجدول التالي تتضمن مجموعة أهداف **مهارية ووجدانية**. والقائمة (ب) تتضمن **مستويات الأهداف المهارية والوجدانية**. قومي بتوصيل كل هدف مع المستوى المناسب له من خلال كتابة رقم الهدف في المكان المخصص:

م	(أ)	(ب)
1	أن تجمع الطالبة صوراً ولوحات أخرى عن حنان الأمومة.	( ) الملاحظة
2	أن تتفاعل الطالبة مع اللوحة الفنية متفحصةً إياها بانتباه.	( ) الابداع
3	أن تُطرّز الطالبة الفستان بجودة 99٪.	( ) تكوين النظام القيمي
4	أن تنظر الطالبة إلى لوحة فنية عن حنان الأمومة.	( ) الممارسة
5	أن تحسن الطالبة معاملة أمها دائماً.	( ) التقبل
6	أن تُحاكي الطالبة معلمتها في تطريز الفستان.	( ) الاستجابة
7	أن تتابع الطالبة معلمتها عند تطريز الفستان.	( ) التجريب
		( ) التقليد
		( ) تكوين السلوك القيمي
		( ) الإتقان
		( ) الاهتمام
		( ) تكوين الاتجاه

مع تمنياتي لكم بالتوفيق والنجاح، ،

25

Appendix 9: Practical Test of the Course (304)

مقرر طرق التدريس العام — بطاقة تقويم للاختبار العملي

مجموعة رقم: — اسم الطالبة:

- ممتاز= درجة واحدة - جيد= نصف درجة - ضعيف= صفر

م	الكفاية	ممتاز	جيد	ضعيف
أولا: كفاية تخطيط الدرس				
1	يحدد الأهداف في المجالات المعرفية والمهارية والوجدانية			
2	يختار المعينات والوسائل المناسبة لتحقيق الأهداف			
3	يحدد الأنشطة المناسبة لتحقيق الأهداف			
4	ينظم محتوى الدرس (السيناريو) بطريقة متسلسلة			
5	يختار أسئلة للتقويم مرتبطة بالأهداف السلوكية			
الدرجة النهائية للكفاية:				
ثانياً: كفاية تنفيذ الدرس				
1	يمهد للدرس بطريقة مشوقة تثير دافعية الطلاب			
2	يعرض أفكار الدرس بطريقة متسلسلة			
3	يُجري تطبيقات (أنشطة) على معلومات الدرس ويتابعها			
4	يختار طرق التدريس المناسبة لتحقيق الأهداف			
5	يستخدم المعينات (الأدوات) التعليمية بجدارة			
6	يستخدم أساليب التعزيز المتنوعة			
7	يطرح أسئلة للتقويم في نهاية الحصة			
الدرجة النهائية للكفاية:				
ثالثاً: كفاية إدارة الفصل				
1	يضبط الفصل ويديره بطريقه فعاله			
2	يلتزم بوقت الحصة من بدايتها إلى نهايتها			
3	يحافظ على الهدوء والنظام داخل الفصل			
الدرجة النهائية للكفاية:				

ملاحظات أخرى:

15

Appendix 10: Student Satisfaction Questionnaire

Student Satisfaction Questionnaire

Please take a few minutes of your time to choose the response which best describes your opinion in the following statements. The purpose of this questionnaire is to evaluate your satisfaction with the General Teaching Method course (304) which you are currently studying.

Note that all the information you give will be entirely confidential.

Please, follow the following instruction:

- Start by filling your personal details.
- Complete all questions on the paper.
- Circle the word that corresponds with your view.
- Give one answer for each question.

Personal Details:

1. Name:
2. Age:
3. G.P.A: High School ( ) College of Education ( ).
4. Including this year, how many years have you been enrolled at College of Basic Education?
5. Email Address:

1

Personal details:

Please, Circle your answer:

6. Do you have a computer at home?

-Yes -No

7. Do you have access to the Internet at home?

-Yes - No

8. How often do you use the computer and the internet?

-Never -Seldom -Every day -Once a week -Monthly

9. How many hours a week do you use the computer and the internet?
(Write your answer in the box)

☐ Hour/s

10. I use the computer and the internet for: ***(can circle more than one)***

-College assignments -Work -Games -I don't use computers

-E-mail - Browsing - Chat - Online Shopping -Pay Bills

- Banking -Microsoft PowerPoint - Microsoft Word

- Multimedia - Other (please specify):……

11. Which (from the previous choices) do you spend most of your time?

(Please specify):……

2

Statement	Strongly Agree	Agree	Disagree	Strongly Disagree
Teaching Method				
1. The teaching method in this course helped me to understand the content.	Strongly Agree	Agree	Disagree	Strongly Disagree
2. I enjoyed the teaching method in this course.	Strongly Agree	Agree	Disagree	Strongly Disagree
3. The teaching method was flexible.	Strongly Agree	Agree	Disagree	Strongly Disagree
4. The teaching method in this course helped my educational level to progress.	Strongly Agree	Agree	Disagree	Strongly Disagree
5. The teaching method has encouraged me to exert more effort in studying.	Strongly Agree	Agree	Disagree	Strongly Disagree
6. The teaching method in this course has fitted in with my expectation.	Strongly Agree	Agree	Disagree	Strongly Disagree
7. The teaching method did not include enough chance for discussions.	Strongly Agree	Agree	Disagree	Strongly Disagree
8. The teaching method has persuaded me that discussions help me to understand the content.	Strongly Agree	Agree	Disagree	Strongly Disagree
9. The teaching method has lead to me attaining course aims.	Strongly Agree	Agree	Disagree	Strongly Disagree
10. In general, the teaching method was excellent.	Strongly Agree	Agree	Disagree	Strongly Disagree
Content				
11. The content of the course was clear for me.	Strongly Agree	Agree	Disagree	Strongly Disagree
12. Topics and units of the workbook has come in order and arranged with appropriate sequence.	Strongly Agree	Agree	Disagree	Strongly Disagree
13. The workbook has suitable usage of activities and examples.	Strongly Agree	Agree	Disagree	Strongly Disagree
14. The content of the course was boring.	Strongly Agree	Agree	Disagree	Strongly Disagree

15. The contents of the course have an exciting and attractive design.	Strongly Agree	Agree	Disagree	Strongly Disagree
16. The activities and examples were enough to explain the content.	Strongly Agree	Agree	Disagree	Strongly Disagree
17. The aims of the course were clear.	Strongly Agree	Agree	Disagree	Strongly Disagree
18. The module content reflects its learning objectives.	Strongly Agree	Agree	Disagree	Strongly Disagree
19. The appearance of the module's workbook facilitates learning.	Strongly Agree	Agree	Disagree	Strongly Disagree
20. In general, the content of the course was excellent.	Strongly Agree	Agree	Disagree	Strongly Disagree
Teacher's Support				
21. The teacher encouraged me to participate.	Strongly Agree	Agree	Disagree	Strongly Disagree
22. The teacher has completed the course in the specified time.	Strongly Agree	Agree	Disagree	Strongly Disagree
23. Communication tools between me and the teacher were good.	Strongly Agree	Agree	Disagree	Strongly Disagree
24. The teacher gave me useful feedback during the course.	Strongly Agree	Agree	Disagree	Strongly Disagree
25. The teacher was unable to use modern technology in teaching.	Strongly Agree	Agree	Disagree	Strongly Disagree
26. The teacher received and replied to my questions sympathetically.	Strongly Agree	Agree	Disagree	Strongly Disagree
27. The teacher has delivered the content of the course to the students in a good way.	Strongly Agree	Agree	Disagree	Strongly Disagree
28. The interaction between me and the teacher was good.	Strongly Agree	Agree	Disagree	Strongly Disagree
29. I found some problems in communicating with the teacher.	Strongly Agree	Agree	Disagree	Strongly Disagree
30. In general, the teacher of the course was excellent.	Strongly Agree	Agree	Disagree	Strongly Disagree

Appendix 11: example of one groups' interview

Interview 3: First Experimental Group (Blended learning using Blackboard)

Hello and welcome to this interview. I will ask in this interview for your personal opinion about the positives and negatives of the General Teaching Method Course (304) which you have followed in this semester. I am going to ask you about three things (three dimensions). Firstly, I am going to ask you about the teaching methods which we used in this course: what do you think of these methods? what is your opinion? what are the positive aspects? what is the most useful thing you have found in this teaching method? What was interesting and enjoyable about this teaching method? And on the other side, what are the negative aspects of the course teaching method? Was there anything you really did not like about the teaching method? This is about the teaching method. The second dimension will be about the content of the course, the information you studied: did you find them useful or not? do you think that you will benefit from this information in your practical life or in your work in the future when you will be teachers? And also, what are the negative points of the content? What is the thing you did not like in the content? what were the positives and negatives? The final dimension will be about the instructor of the course: did you find him helpful and supportive or not? again, what are the positives and negatives of the course's instructor?

Let us start, Fatimah, would you like to start?
Fatimah: Yes, the teaching method was diverse, there was nothing in it to cause boredom.. it was moving from lecture to discussion to learning with groups to e-learning … this teaching method was not traditional.. we followed this course using many kinds of teaching methods which were blended together and this did not make us bored at all ..
Omar (researcher): Ok Fatimah .. what do you think about the VLE of Black?
Fatimah: To me, because I use the internet every day, I did not find any difficulties using this system.. but because this is my first time in College to use this kind of software in education, I found it in the first week to be strange. This does not mean that I did not know how to use it! No! But because this is new for us and we are used to studying in this College via the traditional way, I mean lecture only inside the class and nothing outside the class!
The most positive thing for me is to feel free to learn at any time that is suitable for me .. I can access the Blackboard and participate in the discussion and do activities at any time..

Also, sometimes I benefit from the participation of the other students when they ask you in the general questions department in the Blackboard System or when they discuss the topics in the discussion board.
Also, the communication tools in the Blackboard gave us a very good opportunity to discuss and exchange ideas in online groups. Also, through these online tools in the Blackboard, I learn more about some students whom I did not know in the class through knowing their opinions and ideas and now we are friends.
Some students who have difficulties with using the computers and the internet benefited from this teaching method because in the groups we taught some of them how to use the tools of the Blackboard as well as other thing in the course.
Also, one of the positive things is being able to know the ability of the students .. you know some students do feel shy inside the class ..but in online learning, they feel free ..
Omar (researcher):Ok Fatimah, you have mentioned many positive points. Now I would like to hear the negative points about the teaching method in this course?
Fatimah: There was none.
Omar (researcher): Ok Fatimah, what about the content of the course?
Fatimah: The content was good but in some parts it was long, for example, in Unit 4 there are a lot of information and examples.
Omar (researcher): Ok, what about the course instructor? positives and negatives please?
Fatimah: He was really very cooperative and helpful...

Omar (Researcher): Okay, thank you Fatimah and let me ask Rabia? The same thing, what do you think? The teaching method first (positives and negatives)?
Rabia: Everything was good and clear to me especially the Blackboard which I liked very much.. in fact, in this semester all the lectures in the other modules were boring except this module.. I mean I come to the class and I am pleased and happy because we are communicating not only face-to-face in class but also in online class using the Blackboard.. it was really a very interesting method. Also, the discussion either face-to-face in the class or online via Blackboard was really very helpful for us .. I think this discussion helped prepare us for the exams and it saved us time to study for the exams ... I mean when I studied for the exams I did not take much time because we already discussed most of the topics in this module. I really enjoyed the teaching method in this module.
Omar (researcher): Ok Rabia, any negative points about the teaching method in this course?
Rabiaa: None

Omar (researcher): Ok Rabiaa, what about the content of the course?
Rabiaa: The content was very good, simple and organized.. and had good examples for explaining an idea.

Omar (researcher): Ok, what about the course instructor? Positives and negatives?
Rabiaa: He was very cooperative, and helpful .. I am really pleased because the instructor replied to my question within one hour!

Omar (Researcher): Okay, thank you Rabiaa and let me ask Razan? What do you think? The teaching method first (positives and negatives)?
Razan: Firstly, in this module I do not have any negative point, everything was great except one point which is discussion face-to-face?
Omar (Researcher): Can you tell us why do you think that face-to-face discussion is negative?
Razan: Because I think the discussion in the real class makes me confused and sometimes embarrassed and so I tend to hastily express my opinion on the subject of discussion in class .. But for me, the online discussion using the Blackboard is much better because it allows me to concentrate more and gives me a lot of time to think before I put down my opinion on the subject of discussion. And I agree with Rabiaa that the online discussion saves us time and effort in preparing to the exams because when I studied for the exams I did not take much time to study because I remember most of the ideas in the content, because the online discussion makes me remember a lot of things relating to the course.
Rabiaa: I did not mention that only the online discussion helped us and saved us time, I meant that both of them did, face-to-face and online discussion. I think both of these methods of discussion help us remember the information and save us the time and effort when preparing for the exams by making it simple.

Razan: I do not know.. for me I feel I like the online discussion more than the face-to-face discussion. This is the only thing which I did not like, but everything else was great. I liked the diversity of teaching methods used in this class, for example the self-learning method which was used in the final unit in this module, as well as communication and the study at any time and from anywhere through the Blackboard system. Also, I disagree with what Fatima said that the content is long and there are too many examples. I think we need to

know and we have to read more and more about the subject because this can be useful for us and it also helps us to participate in the online discussion.

Omar (researcher): Ok Razan, do you have anything you would like to add?
Razan: For the instructor of this course, I like the fact that in the first week of the course, the instructor gave us everything about the course, what we need, what subjects we are going to study, how many units, the teaching method of the course, information about the assessment, all of these information gave us a very clear picture of what we should do and what we should not do. But other instructors in the College do not seem to like what you did with us in the first week!

Omar (researcher): Ok Razan, let us move on to Shoroq, what do you think?
Shoroq: The teaching method first?
Omar (researcher): Yes please.
Shoroq: I like the teaching method that you used in this module.. I like it very very much because the Blackboard. I think we are the first group in this College used this system in Education. I like this great system because it is include very effective tools which motivate me to be active in this course, and communicate with the instructor and other students using communication tools and to participate in the discussions topics in the discussion tool. Also self-assessment tool, chat, working together in online groups in the Blackboard, the useful links tool, I liked all of these tools . At the beginning of the semester, I had difficulty using the Blackboard, but over time it has become simple and easy to use. I hope that we used this system in other curses in this College.
Omar (researcher): Ok Shoroq, what about the content?
Shoroq: For the content of the module, I think that I had difficulty studying the last unit because I was not used to this method (self-learning) at all.
Omar (researcher): What about the instructor of the course? Negatives and positives?
Shoroq: He was very helpful .. he was available online if we need to ask him any question.. the instructor was replying to my question very quickly through the Blackboard .. thank you very much.
Omar (researcher): Anything else you would like to add?
Shoroq: Thanks a lot.

Omar (researcher): let us go to the final question in this interview:

If in the second semester there is another course to be followed through merging the online learning though Blackboard and the face-to-face learning (Blended Learning) – the same method used in the General Teaching Method Course – and another course to be followed through the face-to-face learning method alone, and the time of the class was suitable for you and the instructor was the same for both groups, what will you choose? Blended Learning "using Blackboard" group or face-to-face learning group - and why?

Omar (researcher): What do you think, Rabiaa? What are you going to choose? Blended learning method or face-to-face learning method?

Rabiaa: I think I am going to choose the Blended Learning method using the Blackboard because this method helped us understand the content of the module better and because of all that I have mentioned about the positive points of using this method.

Omar (researcher): Fatima?

Fatima: Certainly, I would choose the blended learning group using the Blackboard. In fact, I use every day the computer and the Internet, and if one day I cannot use the computer and the Internet, I feel that I am cut off from the outside world.. Also, in face-to-face learning I feel bored, and occasionally want to communicate with the instructor of the course but usually I do not find him in his office. This is exactly what is happening with a lot of instructors and academic staff in this College. Their offices are almost always deserted. They come to the lecture and then once they finish, they leave the college, and then there isn't any kind of communication between the student and the instructor or between the student and other students until we meet next time in the classroom for the next lecture.

Omar (researcher): Razan?

Razan: I will go with the Blended learning group, because I will then be updated 24 hours a day about the course using the communication tools in the Blackboard system. I can also access the course at any time from anywhere.

Omar (researcher): Shoroq?

Shoroq: Of course I will choose for the Blended Learning group because I liked it!

Omar (researcher): Many thanks to you all .. and I wish you every success in your study and life ..