# AMERICAN UNIVERSITY OF BEIRUT

# A COMPARATIVE STUDY OF ENGLISH LANGUAGE LEARNERS' PERCEPTIONS AND PRACTICES OF USING COMPUTER TECHNOLOGIES AT THE NATIONAL AND A PRIVATE UNIVERSITY IN LEBANON

by CHRISTINE IBRAHIM MOUKARZEL

A thesis submitted in partial fulfillment of the requirements for the degree of Master of Arts to the Department of Education of the Faculty of Arts and Sciences at the American University of Beirut

Beirut, Lebanon

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## AN ABSTRACT OF THE THESIS OF

Christine Ibrahim Moukarzel for

Master of Arts <u>Major</u>: Teaching English as a Foreign Language - TEFEL

### <u>Title: A Comparative Study of English Language Learners' Perceptions and Practices of</u> <u>Using Computer Technologies at the National and a Private University in Lebanon</u>

This research employs an exploratory mixed method research design to investigate the perceptions of students concerning the use of computer technologies in English language classes. In this study, computer technologies are defined as all the computer applications that assist in language learning. The proposed design compares perceptions in higher education communication skills classes at one of the private universities in Lebanon, the American University of Beirut (AUB) and the public Lebanese University (LU). Students at both institutions participated in a survey based on UTAUT, Unified Theory of Acceptance and Use of technology (Venkatesh, Morris, Davis & Davis, 2003). This study also takes into consideration gender differences.

Results revealed that students from both samples perceived themselves as proficient, even though only a few received trainings in their English language classes. The public sector (LU) expressed higher effort expectancy but lacked the facilitating conditions, and there was a scarce use of e-mail and presentations in the public sector. On the other hand, students from the private sector (AUB) requested more training and technical facilitations. Gender differences were expressed at the levels of expertise as males' perception of their expertise was higher of that of their female counterparts.

**Keywords:** technology, education, student perceptions, UTAUT, higher education, English language learning.

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## CHAPTER 1

## INTRODUCTION

The world has witnessed a surge of technology whose effects influenced all branches of knowledge. Technology is everywhere and in every part of the world; it is a tool affecting all sectors including higher education (Murray, 2008). In fact, the introduction of computer technologies in classrooms has shaped a new course for educational systems, especially in English language classrooms. If implemented effectively and purposefully, computer technology- an educational tool implemented in interactive classrooms where teachers and students are partners in the journey of knowledge acquisition, and students are active seekers of knowledge- could become the cornerstone of the teaching process.

The integration of technology into the teaching process includes learning the technology, using it effectively, and knowing when and how to implement it Dockster (1999). Bach claims that technology increases the level of students' engagement for the aim of having access, sharing, communicating, and reflecting the knowledge of learning. Integrating technology into classrooms highly improves students' engagement in the teaching process, which in turn creates an interactive learning environment.

Teaching English language using traditional teaching methods could be a dull and dry experience for some students. In such classrooms, the teacher is a lecturer and the student is a mere receiver, a passive party in the teaching process. However, the introduction of modern technologies into classrooms both revolutionizes and rejuvenates the process of teaching languages by transforming the classroom into an interactive learning environment. In these classrooms, both teachers and students are

partners in the teaching process. More importantly, students take control over their own learning process; they become an active agent in the learning process. Instead of just auditing lectures, students engage in many educational activities, including searching the internet for relevant information, summarizing texts, discussing up-to-date articles, interacting with native speakers all over the world, conducting research, seeking samples of writings, and creating websites among many other educational activities.

Learners' perceptions provide a clear overview of how our students perceive teaching and learning. Studying the learners' perceptions of the use of technology in English language classes leads to a better understanding of the students' points of view which contributes to creating an interactive learning environment, as well as finding solutions to the current problems plaguing the teaching process. Basically, the better we understand our students, the more we can improve the learning environment.

Due to the transformative effects of integrating computer technologies in the learning process, it is no surprise that universities all over the world are quite competitive when it comes to implementing the best and newest technology programs. In Lebanon, the situation is a bit different. While some Lebanese universities successfully integrate computer technologies in their English Language classrooms, others give the subject little attention. The Lebanese University, for example, generally lacks technological equipment, especially in the English language classrooms, as it receives little funding from the government.

There are some studies implemented in Lebanon about motivating students in EFL classrooms to use technology effectively (Bahous, Bacha, &Nabhani, 2011). Nevertheless, topics related to perceptions and practices of students regarding the use of technology in English higher education classes are yet to be considered. This study will

shed light on students' perceptions in order to help educators understand the way their students perceive the technologies they apply in English language classrooms.

#### **1.1 Statement of the Problem**

Using computer technology in language classrooms have become a widespread practice nowadays. In fact, the instructors' interest in such technologies keeps growing each day. Particularly, undergraduate students and their instructors show great concern in learning computer technology and integrating it into their English language classrooms. Yulin (2013) declares that technology is considered as the mediation between language learners and their target language. However, it seems that some higher education faculties in some universities are yet to model the use of technology for teaching and learning (Keengwe, 2007).

It is crucial to know the language learners' perception of implementing technologies in classrooms beforehand, since an effective implementation of the use of technology in classrooms depends on learners' perceptions and requires following clear guidelines of how students think. But the learners' perceptions remain obscure in Lebanon, as no investigation about computer technology integration in Lebanese English language classrooms was conducted. Therefore, this study will investigate students' perceptions and practices regarding the use of technology in English language classrooms, taking the obstacles faced in Lebanese universities into consideration. Witt (2015) says that students perceive the environment in terms of how well they think they are acting in it. In other words, the students' capabilities are closely related and affected by their perception of the environment. Thus, knowing our students' perceptions

especially in English language classes is of utmost important when it comes to plotting future plans of implementing technologies in classrooms.

This study will help understand how English language learners perceive the use of computer technology in teaching and learning. Moreover, the most commonly used technologies will be specified throughout this study, explaining why instructors should implement particular technologies more than others according to students' perceptions. This will leave teachers with a better understanding of the most preferable implemented technologies and the skills they best serve.

### 1.2 Aim of the Study

The purpose of the study is to examine the perceptions and practices of undergraduate Communication Skills students in the Lebanese higher education regarding the integration of technology in English Language classrooms. This study will compare the perceptions of two different populations, the Lebanese University (LU) and the American University of Beirut (AUB). The study will also explore teaching practices that provide information for teachers integrating technology into their classrooms.

This study will examine undergraduate communication skills students' perceptions in the teaching performance expectancy (PE), learning performance expectancy (LPE), effort expectancy (EE), facilitating conditions (FC), social influence (SI), voluntariness of use (VU), gender, age, and experience.

#### **1.3 Research Questions**

The present study tackles five research questions:

1- What are the students' level of expertise and level of proficiency of using of computer technology?

2- What are the perceptions of Lebanese communication skills students in the American University of Beirut and the Lebanese University regarding their training in and use of computer technology in English language classes?

3- Are there any differences between students' perceptions in the private (AUB) and the public sector (LU) regarding the use of computer technologies in English language classes?

4- What is the relationship between gender and the level of expertise,

proficiency level of using computer technologies, and the practices regarding the use of computer technologies in English Language classes?

5- What are the participants' views concerning the barriers, advantages, and disadvantages of implementing computer technologies in their classes?

#### **1.4 Rationale of the Research**

The perceptions of English language learners regarding the use of computer technology in English language classrooms at Lebanese universities remain unclear till this day, as no studies have been conducted to investigate the English language learners' perceptions and practices of computer technologies yet. Therefore, this study fills a void in the research knowledge regarding students' perceptions and practices of the use of technology in their English language classes.

The study investigated the level of expertise and willingness to use technology among English language students in Lebanon based on the UTAUT model. Moreover, it explored the discrepancies between the private and public sector, as well as the effects of using technology. It also contributed to the existing body of literature on students' perceptions and recommends when to use technology and how to use it more efficiently.

Furthermore, the researcher believes that this research paves the way for future studies of the competencies of teaching English language with the use of technology, employing various technological skills and programs that are not addressed in this study.

### **1.5 Significance of the Study**

This study uses the UTAUT theory to explore English language learners' perceptions and practices of using technology at two universities in Lebanon: the American University of Beirut, a private university, and the national Lebanese university, a public university. The findings of the current study provide information on Lebanese learners' perception of implementing technology in higher education and its impacts on the learning process. This is a replication research which was conducted in several countries, but it hasn't been conducted in Lebanese learners. The results of this study add to educational research and practices as it expands the understanding of English language learners' perceptions, the training and internship experience, and the perceived competencies of universities in Lebanon. Consequently, the study may assist the Ministry of Education and Higher Education (MEHE) in Lebanon to provide the suitable technological training in different English language classes.

This research may encourage future researchers in Lebanon and the Arab world to target the use of computer technology in English language classes, especially in universities where the implementation of technology is crucial. Furthermore, technological programs should highlight the importance of teaching and learning certain skills, such as listening, speaking, writing, and reading, as they are important structural building blocks to a successful practice. A clear overview is needed in order to identify the suitable situations which call for using computer technologies in classrooms and the most efficient ways of implementing them. Clear guidelines hopefully will create better communicative learning environments for instructors and learners.

## CHAPTER 2

## LITERATURE REVIEW

#### **2.1 Importance of Perceptions**

A review of previous studies and literature was carried out to help explore the importance of students' perceptions regarding the use of computer technology in higher education English classes.

Akbarov and Arslan (2012) point out that in the past during English language classes, the main focus was on the teacher, not on the students. Nowadays, understanding students' needs and interests is considered the key to create a successful learning environment. It is no secret that most our students claim that there is a problem in the way they are taught second languages, as they face many difficulties in their EFL classes. Thus, educators must endeavor to transform their classrooms into interactive learning environments that cater to their students' needs and interests.

Creating a good learning environment is first and foremost dependent on understanding students. One of the best ways to understand our students is to learn more about their perceptions of the computer technologies used in EFL classes. Witt (2015) defines perception as the reflection of the perceiver's ability. Diprio (2010) believes that what happens in the minds of students is much more important than the instructor's own point of view.

Tudor et al. (2010) states that it is very important to understand our students and the way they perceive learning, especially in higher education. In fact, students perceive their lessons in their own way, which could be at times far or even removed from the reality of things. Thus, educators can understand their students better when they know

their perceptions regarding the material itself. Indeed, the way students interpret a course is even more important than the course's pedagogical effects. Ellis et al. (2008) explains that students' approach to learning is directly related to the quality of their learning outcomes.

Biggs (1989) perceives the learning process in two set of variables: the way students understand learning and its effect, and the learning environment. As a matter of fact, students' perception of the learning and teaching environment is directly related to their relationship with their educators and their success in the taught material. Entwistle (2008) declares that the way students perceive their learning environment is more important than the teaching learning environment and the instructors' role. Students are the most important part of this learning environment, and educators should consider their perceptions the reference in their teaching process. Al Khatnai (2011) asserts that understanding student' learning styles and expectation in the learning environment is a must in every educational institution. If we manage to successfully understand students' perceptions about the taught material and their approach to learning, then we can customize the learning environment to satisfy their needs. Students will come to enjoy the learning process, and we will witness higher success and enrollment rates in the universities' EFL classes.

Now, student's perception is the base of the learning environment; it plays a vital role in every faculty all over the world (Chen &Hoshower, 2003). For instance, faculties in North America, Australia, Asia, Europe, and even in the Far East place utmost importance on studying students' perceptions. This has become a ritual practice at most colleges and universities everywhere. As part of the quality assurance system, Kwan

(1999) added that student's perception has become a must in each course and in each faculty.

Marshaw and Roche (1993) clarified the reason behind the importance of student's perceptions in faculties around the world. Student's evaluations of course effectiveness provide a clear guideline for universities to improve teaching. In other words, it could be considered as a teaching effectiveness determinant. Students' perceptions examine development and validity (Marsh, 1987; & Cohen, 1981). It provides reliability for a research or study, too (Feldman, 1977).

Kwan (1999) claims that if you want to test teaching effectiveness of a certain course, students' perception is sometimes the only and at other times the mostly used instrument in universities. A study with Saudi EFL college students was held, where results showed that learners' perception is a predictor of academic satisfaction and success in various learning environments.

### 2.2 Language Teaching and Technology

Collis and Moonen (2006) said that technology is the key to language. It helps us reach other learners and professors. It guides us through knowledge, and allows us to share the knowledge we have. Technology transforms the learner from a giver to a creator, from a listener to a doer, from a fixed learner to a chooser. It helps in organizing, archiving, finding, saving, maintaining, synchronizing, communicating, submitting, and returning feedback. Technology is multifunctional. We only need to implement it in our classrooms and allow it to do its magic.

Integrating the use of technology into higher education EFL classes allows the achievement of a multitude of tasks. For instance, according to Omani students using

technology is employed according to Avinash (2007) to search for references related to English assignments, create a literature reviews, translate, and quote some authors other resources to support their arguments. Studies have found that students are highly dependent on technology, especially in English language classes. Level 1 English students mostly use technology to translate new vocabularies, using different translation software and online applications. When students reach level 2, they spend most of their time writing assignments, so they mostly use technology to accomplish language assignments, reports, and projects.

Zhao (2005) conducted nine studies on college students and adult learners which revealed that technology had a positive effect on language learning. The study focused on teaching listening, reading, writing, speaking, vocabulary, grammar and culture skills. He concluded that the effectiveness of technology is as much as the effectiveness of teacher-based classroom. Therefore, institutions should provide the needed support to implement technology fairly. However, technology will never replace teachers. It is a tool utilized by teachers to change their classrooms into learner-centered learning environments.

Technology builds a whole EFL teaching and learning environment full of motivation, interest, and action. Using technology brings life to a real and authentic learning environment that helps developing improving learners listening, speaking, and writing skills. Harb, Abu Bakar, and Krish (2013) assert that computer technology plays a vital role in teaching listening and speaking skills. The computer by itself allows communication with other cultures, languages, and personalities. Thus, it allows class members to interact with other foreign learners and even native speakers. As Warschauer (1996) states, technology has opened the doors to students to feel less

isolated and be able to contact others more easily. Moreover, web based tasks are very important especially in listening and speaking which lead to face to face language instructions and conversations with worldwide natives.

Kasper (2000) added that the use of technology helps EFL learners develop their reading comprehension skills and other sub skills. Technology gives students access to real texts and reading materials, granting them the chance to choose from the variety of authentic materials whose importance they personally appreciate. The more real and authentic the reading material is, the more interactive and important the material becomes to the reader.

Cummingham (2000) further notes that students' writing improved while using word processing. Arno-Macia (2012) also comments that technology is a way for discourse and a different type of text in all fields and languages. In addition, technology allows learners to experience the group work spirit that creates a new and creative environment.

Gaining the interest and attention of most 21<sup>st</sup> students has become a struggle to most teachers. For example, most literature professors find difficulties explaining the texts in an interactive way. They focus on the learning process, forgetting about technologies. In this case, the mediation between language teaching and technology is a must in order to enliven the lessons and arouse the learners' interests.

Blake and Dorothy (2008) declare that there are many technologies that affect the language teaching in EFL classrooms. The internet, CALL (Computer Assisted Language Learning), computer mediated technology, and many other newly-born technologies could be employed to facilitate and guide an interactive environment. Yulin (2013) conducted a study in two Taiwanese universities whose results showed

that technology had a positive impact on language learning. Learners were more enthusiastic to learn English, and motivation in the classroom increased. The use of technology improved the quality of the lesson and the way the material was taught. Students came to enjoy the language itself and showed more interest to read, listen, speak, and write.

Garrett (2009) says that technology provides a reference to foreign language learners. Technology is a must in every language classroom. Wappel (2010) reveals that teaching and learning English as a second language in the United States with the help of technology provided teachers with huge package of knowledge and resources which guided students from their native language to English. Now more than ever, technology has given learners the chance to communicate with native speakers all around the world, analyze others' works and studies, and find answers for all unanswered questions. Fouglar and Jimenez-Silva (2007) confirms that technology created a new learning atmosphere for professors and students alike.

#### 2.3 Problems Hindering Technology in English Language Classrooms

Alsied and Pathan (p. 1, 2013) believe that "technology has become an inseparable part of today's world". They add that many studies asserted the use of technology in language learning lessons. Technology imposes a stronger learnercentered environment and makes the learning process more interactive. The use of computer technology in teaching languages gives learners tangible chances to practice and assess their language skills.

Teaching has been a teacher-directed process for a long time, but with the evolvement of the human race and its knowledge, it is transforming into a learner-

centered process, or even a mixture of both. Kop and Hill (2008) claim that as a result of the changes that occurred with the increased accessibility of information and the evolving technologies, the educators in higher education institutions are forced to adjust their teaching methods in an ambiguous method that ought to cater to students' various demands. Onyia and Onyia (2011) examined a study that was held in a number of Nigerian faculties which have failed to integrate technology in their language-teaching classrooms. Results indicated the need of a social change in order to provide educators and administrators with the needed data to develop the skills required to be able to implement technology in their classrooms. Savery (2002) claims that professors teach the way they were taught. Therefore, they should be trained to use technology more effectively.

Numerous researches have been conducted to explore the factors that create problems and prevent using technology more effectively in higher education EFL classes. Some believe that administrators fail to provide the financial and technical support needed to successfully implement technology in classrooms. Whereas, others believe that adopting technology will result in radical changes to the entire process of learning, which could be challenging to some educators. In addition to that, faculty members might not have enough time to implement such dramatic changes, or they could simply lack the interest and will to understand technology itself. In the same vein, another problem (Annan, 2008) might be that some faculty members give little importance to technology. Park and Son (2009) discuss the problems faced by EFL educators in Korea; Korean educators complained of the lack of time, lack of computer guidance, and lack of administrative support.

A study that was conducted in several Japanese universities by Yamauchi (2009) showed that professors struggle with low academic achievers and worry about their performance, especially with educational technologies. However, this study asserts that even low achievers get used to all taught learning skills and can get more motivated to learn. With the use of technology, students become active listeners and learners. Shaffer (2013) urged educational institutions and curriculum planners to provide enough training programs, as well as time for instructors to be able to implement the use of technology more efficiently. Thus, the scarcity of time is a prominent obstacle facing educators who try to implement technologies in their classrooms.

Professors have no enough time to include interactive assignments because they have loads of material to cover while following the same curriculum being used year after year. On the other hand, learners are difficult to deal with at the present time. Green (2009) also acknowledges that educational technologies include training and supporting students in order to have them reach their own satisfaction and motivation in their classes. Shoffner (2009) claims that the preparations for new technologies should cover the academic, personal, and pedagogic levels of technology use taking into consideration students' engagement in all courses.

Pate (2016) comments that technology use in classrooms can sometimes be too automated; it encourages a consumer mindset, reduces interactions and connections between students and with the instructors, and can encourage plagiarism. However, the way the use is designed in the classroom can successfully help limit these negative outcomes.

Innovative learning is the key to success. Bash (2003) supports adult educators to be leaders in the use of educational technology with their students, in their own

lifestyle, and for their demanding profession. According to Hopey (1999), adults who use educational technology can gain more knowledge and create active learning skills and critical thinking if five implementation points were acquired. There should be planning, training, technical support, Leadership and enough resources.

#### 2.4 College Students' Perceptions

Students' perception has become a main concern in the teaching process. It functions as an indicator of students' levels of enjoyment of a lesson, interaction with educator and classmates, and understanding of the language being taught. Moreover, students use technology inside and outside their classrooms; thus, their perception of technology is very crucial to the advancement of technological language classrooms, and it has a lot to do with either its success or failure in the classroom itself (Turner & Crews, 2005). Doll (2007) points out that student's perceptions are directly related to the achievement or collapse of technology use in the classrooms.

Harb, Bakar, and Krish, (2013) proved that learners felt positive about the use of technology. More than 85 % were familiar with computer technologies, and many were eager to be connected with native speakers, which will help them improve their language skills. Kalanzadeh et al. (2014) reports that 60 Iranian EFL university student demonstrated positive attitudes towards the use of technology in English classes. Azmi (2013) declares that students say that low achievers are always left behind during interactive activities. While other students believe that they become more interested in learning the English language with the use of technology, and the overall environment becomes more interactive and authentic, which paves the way for students to understand

more. AlZumor et al. (2013) explored the fact that blended learning, a part of the technological practices, showed positive influence in English language classrooms.

Assafieh et al. (2014) sheds light on the difficulties that students face in EFL classes. According to students, speaking is the most difficult task; writing is harder than reading; and listening is the least difficult task. This study urges English departments to show more concern in implementing new programs and software, which would feel authentic to the students and would provide them with new experiences ultimately leading to a better understanding of the language. Administrations should be also concerned with providing adequate training for students and solving all technical problems when planning to implement technology in EFL classrooms.

The English language itself is in need of more communicative approaches; after all, this is what language is all about. Technology provides a means to stay in contact with native speakers, authentic experiences, authentic texts, knowledge from all over the world, and up-to-date data. Schmid (2008) reports that students viewed technology as a facilitator to language and learning. They were more attentive in classes, their knowledge increased, their understanding widened, and ability to recall information increased, and their enthusiasm to learning developed. This was the perceptions of twenty nine students from China and Taiwan aging 20 to 36 years.

Zhao et al. (2009) declares that students found technologies to be productive enhancers in teaching and learning. The biggest question remains whether college students are prepared for our new programs or whether they really have the computer skills required to spread educational technology more effectively. Orr (2008) believes that according to students' perceptions regarding this issue, students show real enthusiasm to be a part of the teaching and learning environment and that not all

teachers prepare their lessons on the IWB equally. Therefore, as students, they believe that being a part of the teaching environment will decrease the level of preparation on one hand, and increase student's involvement in the EFL classes allowing them to join the instructors' experience and train students to become better speakers and learners.

EFL students' perceptions play a significant role in our recent technological shift in education. Professors always take into consideration students' interests and needs. A study by Kung and Chuo (2002) explored the role of EFL websites with 49 students who were taught how to use 5 websites. Students revealed that despite difficulties they faced, they believe that the English lesson felt more interesting and teaching felt more familiar and authentic to them. Another EFL study by Bataineh and Baniabdelrahman (2006) conducted with 210 EFL Jordanians sheds light on their perceptions regarding their computer literacy. The findings showed that students were between fairly proficient to proficient in computer skills. The study showed no gender effect, but the results differed with the different levels of students. To illustrate, students of fourth year students were more proficient than the first year college students. This proves that students' lack of proficiency of using technology is not always the university's fault; schools assume responsibility too. Therefore, educational technology is a chain connected tool that should be applied at all educational levels. A comparable study by Elwood and Maclean (2009) conducted in Japan and Cambodia revealed that Japanese students were considered as highly proficient in technology because of their everyday use of technology. However, Cambodian students were highly proficient in word processing only. Both considered technology as a very important source of learning a foreign language and had minimal fear of using technology with time. Oh and Ghwizdka (2011) examined technology use in higher education. Thirty six

undergraduate students from Rutgers University enjoyed learning and technology. Students can even apply and manage multiple tasks with the use of technology. They are used to technology; it is one of their daily life rituals. With the use of technology, learning would become easier, and more information would be given.

Teaching students computer skills is an important task. Stone (2016) focused on a one-to-one (student to laptop) program aiming to enhance students' computer skills. It appears that students' perceptions of such programs are not very positive. To reach positive perceptions, this 1:1 program needed a lot of adjustments. What hindered this program is that the laptop was used only to replace more traditional objects. Thus, one of the reasons of the failure of technology implementation is when it fails to be innovative and engaging to the students. Students need pleasant innovative programs with pleasant interface, especially when it comes to new techniques and technologies.

The way college students perceive their professors is a crucial part of their learning process. A study by Kourieos and Evripidou (2013) discussed Cypriot EFL students' perceptions of their professors. The study revealed that students view their professors as helpful and interactive, but not authoritarian. Students stated that they want professors who understand their differences and weaknesses in language, taking into consideration their needs and interests, and then base his/her lessons accordingly. Students encourage their professors to leave their traditional ways and involve themselves with their students to create a social atmosphere full of knowledge. Doll (2007) explains that learning has shifted into newly technological environments. He conducted a study in Saudi Arabia in Fall 2006 at Bin Fahd University. The majority of its students' were part of the preparatory English program to improve their English

skills. Almost all the students wanted to use various forms of technology in their classrooms, adding that it helped them in learning English.

A study by Saeed et al. (2009) explored the impact of learning styles on the level of students' achievement. They found out that college students who learned more through educational technologies achieved more, and they were more motivated to work. Carr et al. (2010) reveals the perceptions of students in Southern California University. Three hundred forty-five language students in the beginner level were surveyed. Results showed that technology gave students more pleasure to learn and increased their confidence in using technology in general. Another study by Nicholas and Ng (2009) examines learning via online applications. The study was a mixed method design, and it proved that learners had a strong relationship with their professor while learning and they have actually enjoyed the course. Motivation and more participation reigned in the lesson.

Researchers found that students should be given the chance to explore educational technology to reach more successful experiences, understanding, and achievement. Campbell (2011) notes that some students fear technology. Fluent readers participated in more challenging games than others, while struggling students chose only basic games. However, technology helps students feel more comfortable and at ease. Once struggling students feel confident and secure, they come to learn more through technology. Technology provided struggling students with the security and the chance to express themselves they needed. Some students really enjoyed technology and were encouraged with time to compete and use more advanced language programs and games. Coskin and Arslen (2014) conducted a study with 132 English language learners from five different countries. Thanks to technology, students felt the motivation
to learn the English language. They became more responsible and self-dependent. Furthermore, their skills of communication and social aspects progressed a lot. They were all enthusiastic to learn even though some of them used to feel bored especially in EFL classrooms before.

An important case study in Taiwan was implemented by Lin and Chang (2012) where the lack of students' enthusiasm to learn English language became a problem for educators. Thus, the Taiwanese Ministry of Education wanted to encourage higher education students to become highly proficient in the English language. So, they implemented technology in EFL classes. As a result, students became more interactive and willing to learn, while faculties got the support they needed. As for their students' perception, their students were satisfied and enthusiastic to learn more. Santili and Beck (2005) add that the faculty which uses educational technologies more efficiently gives its students the chance to have an important and supportive feedback.

### **2.5 Instructors' Perceptions**

According to several studies, instructors' perception regarding the use of technology was mostly positive. Mayes et al. (2009) adds that all educators should support the use of technology, give the chance to institutions to meet learners' needs, and provide enough support for this technological plan in order to promote learning in higher education. The new data by Pew Research Center reveals that college students have reached a high level of expertise in using technology. It is estimated that in the upcoming ten years, more than half of the textbooks will be digitized. Instead of books, students will only need to carry smartphones, laptops, and mini tablets to their classes. It will then be the instructor's responsibility to deal with such uses (Taylor, Parker,

Lenhant, & Patten, 2011). As Aworawa, Worell, and Smaldino (2005) and Smith and Robinson (2003) declare, both studies emphasized the need to build new preparatory programs that will go along with this technological flow. Manning and Carpenter (2008) added that global competitions are everywhere, especially in higher education institutions; therefore, we must improve our technologies and training. Means et al. (2009) continues the argument to add that we have to improve our understanding of education and help to promote it. Universities need highly ambitious instructors. The current web-based technology is considered among the best technologies we have right now. Such technologies are considered incomparable with late technologies.

According to a study by Park and Son (2009), EFL educators in Korea were positive and viewed technology as an important educational tool that encourages the teaching process and allows access to real and authentic materials. Harb, Bakar, and Krish, (2013) reveal that instructors' enthusiasm towards implementing technology in EFL listening and speaking skills at the university level. Carr et al. (2010) maintains that instructors in Southern California University were more at ease while using technology and believed that their lessons were more interactive. In their case study, Groves and Zemel (2000) report the demands of professors who asked for accessible hardware and software, training, and easily-operated technologies. The professors stated that as long as the university kept funding and providing up-to-date easily-accessible programs, they were ready to implement technology in their classrooms. All the professors seemed to have a positive attitude towards the use of technology in their classes, but they were not sure of the faculty promises regarding the matter.

Technology is recurrently found to be promising in aiding an efficient instruction, but it does depend on the way instructors decide to use these tools at their disposal: they should not forget to encourage critical thinking (Pate, 2016).

#### 2.6 Gender Differences in Perceptions of Technology

It is plausible to believe that gender differences exist in terms of perceptions of technology and its uses. For example, based on many studies, women seem to have less experience with computers, while men seem to feel more confident around computers (Hargittai& Shafer, 2006; Ilie, Slyke, Green & Lou, 2005; Jackson, Ervin & Shmitt, 2001; Lee, &Kirkup, 2007, as cited in Lee, Yeung & Ip, 2016; Wasserman & Richmond-Abbott, 2005), and these self-assessed skills may be the reason behind men's advantage compared to women (Hargittai& Shafer, 2006). One of the remarkable gender differences when it comes to technology is the individuals' use and knowledge of these tools. Knowledge of web use is in fact a significant independent variable affecting gender differences in Internet use (Wasserman & Richmond-Abbott, 2005). Most studies demonstrate that men seem to spend more time surfing the Internet than women do, and they consume the Internet more intensely as well. It might be explained by the fact that women have less free time at home to be spent online (Hargittai& Shafer, 2006). In fact, socio-demographics, which might in turn be related to gender, influence the different uses and knowledge of Internet and technology. But the access to Internet did not depend on gender; the more direct factors were sometimes found to be age, income, racial background, and marital status. In contrast, differences in frequency of use were found to be insignificant (Wasserman & Richmond-Abbott, 2005). Hence, Wasserman and Richmond-Abbott (2005) found that women are not as likely as men to

use the web to chat, but were somewhat more frequent users of e-mail, and their choice of sites was larger than that of men's. Jackson, Ervin, and Shmitt (2001) studied the gender gap in Internet use and examined the potential factors behind it. The Student Computer and Internet Survey were used in this study. It contained questions about Internet and e-mail use, in addition to the potential cognitive and affective mediators of use. It was completed by 630 Anglo-Saxon undergraduates, among which were 403 females and 227 males. Results showed that females used e-mail more often than males, while males used the Web relatively more.

As for results relevant to affection, it was found that compared to the males, women reported more computer anxiety, less feelings of self-efficacy when it comes to computers, and less favorable and stereotypic attitudes towards computers. In addition, males were more likely to have had a computer at home. Some of the mediators of these differences were found to be partly computer self-efficacy, depression, and feelings of loneliness. However, gender continuously showed to have an immediate effect on computer use, even after the potential mediators were considered. The unequal sample sizes might have accounted for a part of these findings, but this study still highlights the role of gender in differences in computer use. In a study based on a sample of 1513 participants, from 40 different schools from 13 diverse districts, Hohlfeld, Ritzhaupt, and Barron (2013) examined gender differences as they relate to Information and Communication Technology (ICT) literacy. Using a computer-based survey, gender gap was analyzed based on how it is manifested and perceived in the participants' ICT skills. The results found showed significant differences in all the examined areas, in favor of females: unlike the previously discussed study, females had higher scores in their perception of frequency of computer use, perception of ICT skills, and attitudes

towards computers. Females also had considerably higher scores on all sections of a performance-based assessment used in this study.

These results opposed many previous results. A comparison concerning technology usage was done by Ono and Zavodny (2005) using survey data from 1997 to 2001, coming from men and women from both Japan and the United States. Results, after controlling for socioeconomic characteristics, showed that there were significant gender differences in technology usage in both samples. However, these differences disappeared or were reversed in the United States but stayed in the Japan sample. This result mirrors a similar older study by the same authors, which had showed that the gender difference in terms of skill ceased to exist, but gender differences in intensity of use remained (Ono &Zavodny, 2003). It seems that the change in the skills required for most jobs have favored women and erased the advantage that men had (Ono &Zavodny, 2005). And with the increasing number of computers installed at home and offices, women have more chances of practicing their use and discovering these computers (Wasserman & Richmond-Abbott, 2005). People from both genders who were not currently working had lower levels of IT knowledge, but Japanese working females showed lower skill levels than Japanese working men, which was not shown in the United States. This study showed relevant information concerning both gender and cultural differences in technology skills. Thus, it can be noticed that gender differences in technology usage is an important and contrasted issue.

Other studies consider the gender difference in perceptions instead of literacy in technologies and the internet. A study by Gefen and Straub (1997) was concerned with the gender differences that might be responsible for the differences in the Technology Acceptance Model (TAM), which is a model widely used to examine gender differences

(Ilie et al., 2005). This study also took culture and sociolinguistics into consideration. The sample was of 392 participants from three different continents working in the airline industry, and relied on questionnaires. Findings showed that there is a gender difference in the perception of e-mail but not its use: women perceive e-mail as being higher in social presence than men perceive it. Findings also supported how men tend to feel more at ease around computers than women do, reflecting previous findings. This study implied that future research on IT should take gender gap into consideration. An additional study by Ilie, Slyke, Green and Lou (2005) also examined gender differences in perceptions and use of communication technology: gender showed to have strong moderation effects on the perceptions of many characteristics of communication technology, such as advantages, ease of use, and use intentions, among others. It appeared that users' perception about a certain technology influences the use, and these perceptions, in turn, vary depending on gender. For example, women perceive consumer-oriented electronics as being more favorable than men perceive them. Building on these findings, the researchers assumed that males and females rely on different decision techniques when considering unusual technologies, and this will indeed influence their decisions: while men's decisions were more affected by perceptions of usefulness, women's decisions were more impacted by views of ease and subjective norms (Ilie et al., 2005). To test these claims, the researchers administered a survey to individuals enrolled at a major southern university in the United States, and 279 were collected and used: 170 were males and 109 were females. Gender appeared to moderate the perceptions: women favored ease of use more than men did, while men favored advantage more, which was in line with the study's hypotheses.

Acceptance of technologies and the internet can also be illustrated by the degree of acceptance of these tools. Using the UTAUT constructs and approach instead of TAM, Wang and Wang (2010) collected data from a sample of 343 individuals in Taiwan to study the acceptance of mobile internet use. Most notably, the performance expectancy construct turned out to be strongly related to the intentions of use of mobile internet. It is implied by this research that in order to boost the mobile internet usage, the practitioners ought to spend effort developing worthy services and options aiming to serve the claimed needs. No gender differences were found in this study, consequently this research added important information about gender differences in technology.

Tsai and Lin (2004) cared about gender differences among adolescents. The sample in this case consisted of younger participants in Taiwan (636 high school students), and the research question was relevant to males and females' different perceptions of internet's purposes. The concerned instrument was a questionnaire. The differences in perceptions based on gender were significant; yet again males thought the internet was akin to a toy, while females thought it was comparable to a tool or technology. It would then be important to learn whether this recurring pattern of gender differences in technology use and perceptions is relevant to learning.

Technology has the potential to be an efficient learning tool, and computers promise to provide the right space and means for language learning (Lee, Yeung &Ip, 2016). Technology-mediated learning (TML) is increasingly used by educators as a substitute to traditional learning methods (Hwang, 2010). But learning is not a simple process, and it is expected to find some differences based on the learning style preferences of the students, as well as demographic differences (Lee, Yeung &Ip, 2016). This was the subject of study of Lee, Yeung and Ip (2016). Their sample came from

university students and studied the relationship between learning styles and the use of computers for language learning. The participants' learning styles in relation to their use of computer technology were retrieved through adequate questionnaires, while taking into consideration the demographic variables, namely gender and age. This study found no gender differences when it came to technology application or usage nor learning styles. A significant relationship was found between computer use and benefit for certain learning styles. These findings suggested that technology would help learners discover and benefit from the knowledge of their learning styles. This is evident in the fact that technologies give learners, language learners in specific, more abundant choices of their preferred studying styles (Lee, Yeung &Ip, 2016). However, there are some disadvantages of language learning using these technologies expressed by learners, including feelings of isolation and loneliness when learning using these platforms instead of regular classroom settings. Some students prefer real life interactions with instructors and other students (Lee, Yeung &Ip, 2016).

Hwang (2010) investigated the components of TML that aid it in succeeding, even with gender differences. It appeared before that some social factors are important predictors of TML success, namely commitment and identification among group members. In Hwang's (2010) study about the essential components of TML success, social and self-identities were shown to significantly affect identification and enjoyment of sharing and communicating through e-mail, an example of TML. Gender showed a significant moderating effect: men showed more indications of self-identity, whereas women showed more indications of social identity.

#### 2.7 Unified Theory of Acceptance and Use of Technology (UTAUT)

UTAUT is a technology acceptance model developed by Venkatesh and others in "User acceptance of information technology: Toward a unified view". The UTAUT as shown in Figure 1 aims to increase user intentions and behavior in using an information system. The UTAUT theory reflects perceptions of participants about the use and acceptance of technology in their learning practices. The theory is constituted of four key constructs: 1) performance expectancy, 2) effort expectancy, 3) social influence, and 4) facilitating conditions; the first three being direct determinants of usage intention and behavior, while the fourth a direct determinant of use behavior. This model can also be used in some cases to investigate gender differences (Wang & Wang, 2010). Gender, age, experience, and voluntariness of use are posited to moderate the impact of the four key constructs on usage intention and behavior. The theory was developed through a review of the constructs of eight models that earlier research had use to explain information systems usage behavior (theory of reasoned action, technology acceptance model, motivational model, theory of planned behavior, a combined theory of planned behavior/technology acceptance model, model of personal computer use, diffusion of innovations theory, and social cognitive theory). Several researchers carry out the UTAUT theory in several contexts. Koivumäkietal.(2008) applied UTAUT to study the perceptions of 243 individuals in northern Finland toward mobile services and technology; findings revealed that time spent using the devices did not affect consumer perceptions, but familiarity with the devices and user skills did. Curtis et al. (2010) applied UTAUT to the adoption of social media by 409 United States nonprofit organizations. UTAUT had not been previously applied to the use of social media in public relations. They found that organizations with defined public

relations departments are more likely to adopt social media technologies and use them to achieve their organizational goals. Women considered social media to be beneficial, whereas men exhibited more confidence in actively utilizing social media. Verhoeven et al. (2010) applied UTAUT to study computer use frequency in 714 university freshmen in Belgium and found that UTAUT was also useful in explaining varying frequencies of computer use and differences in information and communication technology skills in secondary school and in the university. Indeed, individual differences such as habit also have an effect over technology use (Venkatesh, Thong & Xu, 2013).

Findings by Venkatesh, Thong & Xu (2013) reveal that the habit itself changes across age, gender, and experience. Another illustration of the effects of sociodemographics on UTAUT is present in a study by Wang, Wu and Wang (2009), which was concerned with the acceptance of mobile learning and its relation to age or gender differences. The data came from 330 Taiwanese respondents. Age turned out to be a moderator, and social influence affected the degree of acceptance. Performance expectancy also had a significant influence on acceptance, which holds implications on the conditions of acceptance and success of mobile learning and other technologies. UTAUT was also used to determine the factors behind the acceptance of new technologies potentially used by therapists. Parts of these results were additionally mirrored in another study conducted in public universities in Tanzania, in a sample coming from 1088 university researchers. In this study (Dulle&Minishi-Majanja, 2011); open access seemed to be an important determinant of usage, as well as, again, performance expectancy. Additional factors found here were attitude of the users, their awareness, and the effort they expected to put. These factors should be taken into consideration when implementing related educational projects.

Social factors and social influence might be important determinants of acceptance. It appears in a study by Liu et al. (2014) that performance expectancy was the strongest predictor of the usage of new technologies, and it is the facilitating condition and the behavioral intention of the therapists that had determined the current use of new technologies: the expected performance of the tool is what is important in the choice of new technologies. This finding is important because in the hospital where this study was conducted, the use of new technologies were not mandatory and social influences were insignificant factors; therefore, it seems that acceptance of new technologies depends on the technology itself. But in another study by Venkatesh and Zhang (2010) that investigated 300 employees from both the U.S and Japan, it was found that social influence was the most important predictor across all employees. In fact, it was more important than the effect of gender, age, and voluntariness, but this, however, only held for Japan, as the latter factors did hold for the U.S only. So, social influence does matter when it comes to UTAUT. Experience was found to moderate the effect of social influence on intentions of use.

Thus, it seems that success of technologies, as well as their acceptance and use, depends on the technologies themselves in some cases and on the way their use is implemented. When it comes to educational purposes, the success of technologies depends on many factors, including their intentions of use as well as their encouragement of critical thinking and interactions in the classroom (Pate, 2016). Educators should also avoid their negative consequences, for the use of technology sometimes can become very mechanical and even boring, and can cause students to abuse a consumer mindset. Instead, the application should encourage a comprehensive

use of the senses (Pate, 2016). When the technological implementation lacks innovation, it tends to fail in raising acceptance (Stone, 2016).



# CHAPTER 3

# METHODOLOGY

This chapter presents the methods and procedures for collecting data on students' perceptions and practices regarding the use of technology in the English Language classrooms. Collecting data from communication skills students in Lebanon is fundamental for understanding their perceptions regarding the level of expertise, level of using, trainings, and practices of computer technologies in English language classrooms. The chapter presents the procedures of sampling and data analysis to address the questions raised in the study.

#### 3.1 Purpose of Study

The main purpose of the study is to examine and compare the perceptions of students in the Lebanese higher education regarding the integration of technology into English language classrooms. This study also looks into the different aspects of participants' perceptions about using technology in their teaching and learning experiences capitalizing on the best instructional practices that engage students with technology.

# 3.2 Design

This research employs an exploratory mixed method design that uses qualitative and quantitative methods to gain a deeper understanding of the perceptions of students in the English language classes. The design describes and compares perceptions of students enrolled in higher education communication skills classes at one of the private

universities in Lebanon (AUB) and the public Lebanese university. Questionnaires are distributed to students from different majors taking preparatory English classes at the universities participating in the study. Three open ended questions were also asked to the participants in order to probe into their responses to the questionnaire. The components of the students' questionnaires are scales (e.g., 4-point scales, 5-point scales only for level of expertise and use) and open-ended questions. They form the quantitative and qualitative forms respectively.

#### **3.3 Participants**

The target population is undergraduate communication skills students majoring in different specializations but taking the preparatory English language courses together as a requirement. The study focuses on college students at the Lebanese University and at AUB in Lebanon. The Lebanese University belongs to the public sector, while AUB is a part of the private sector of higher education in Lebanon. The participants are communication skills students from different majors enrolled in the two universities chosen to participate in the study. The communication skills students are already accepted as students in their university, but still need to pass certain preparatory courses to meet the admission criteria of their respective universities. In other words, they need intensive English language proficiency in order to be able to pass their classes. At AUB, students taking the English 100A; 100B; 102, 203, and 204; and 206 courses are part of the study. Students taking the English 100 develop good linguistic and communication skills and work on different activities and readings. The course prepares them for a university-level discourse and boosts their academic writing skills. ENGL 102, Enrichment Course in English, is related to writing short essays of various expository

types. This course is directly related to fluency and accuracy. Throughout this course students are involved in class discussions, informal debates, and oral presentations. ENGL 203, Academic English, is a course designed to develop critical thinking, reading, and writing at the sophomore level. ENGL 204, Advanced Academic English, course is related to reading comprehension, synthesis, critiquing, and research skills. It is a follow up course for 203 but focuses more on independent research and discussions. ENGL 206, Technical English, introduces English as a communicative skill. This course focuses on oral communicative activities and presentation skills. The Lebanese University gives preparatory English courses for all students no matter what their major is if they do not meet the University's English standards. There is an English Preparatory course for students who do not meet the University's standards in each branch of LU. Those students take the preparatory English courses along with their major courses. They have preparatory English 1, 2, and 3.

Surveys at the end were collected from 553 undergraduate students from both AUB (N = 296) and LU (N = 257). There were a few more males (N = 155) than females (N = 141) in the AUB sample, and more females (N = 184) than males (N = 75) in the LU sample. No information about age or other socio-demographics were collected.

#### **3.4 Instruments**

The questionnaire was distributed for English language students at AUB and LU. It is an investigation of the perceptions of English learners in Lebanese universities. Appendix A includes the level of expertise, level of using, and training in computer technologies. Appendix B includes the questionnaire related to the UTAUT theory. The students' survey is made up of four subscales, including learning performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC), Voluntariness of Use (VOU), and Social Influence (SI). The scale analysis rates are represented such as strongly agree is 4, agree 3, disagree 2, and strongly disagree 1. For each participant, a sub score is computed, and each student will have a composite based on all the 4 subscales mentioned above. Appendix C presents examples of the best instructional practices. The scale analysis rates as daily, weekly, monthly, and never. The second table scale analysis represents the same instructional practices but has a different scale analysis.

The scales are Listening, Speaking, Reading, and Writing. Appendix D lists the three open ended questions for the qualitative analysis part which includes the barriers, advantages, and disadvantages of computer technologies.

# 3.5 Data Collection

### 3.5.1 Coding

The questionnaires were coded to maintain confidentiality. Two universities, the American University of Beirut and the Lebanese University are coded as AUB versus LU.

Appendix A exposes the level of expertise with a five scale level: No experience (1), Beginner (2), Intermediate (3), Good (4), and Expert (5), in addition to the level of use where never is (1), rarely (2), sometimes (3), frequently (4), and always (5). The training sessions taken during the last three years in Appendix A constituted of 5 subscales rating no as (1), one session (2), two sessions(3), three sessions(4), and four sessions (5). As For Appendix C, it is a table to interpret the computer technologies

mostly used where the answers are divided into daily (1), weekly (2), monthly (3), and never (4). Another table containing the same applications being used reveals which English language skill we can apply those technological tools to: Listening (1), Reading (2), Writing (3), and Speaking (4). Reliability analysis was conducted for each component of the UTAUT (2003) survey that includes learning performance expectancy (PE), effort expectancy (EE), facilitating conditions (FC), social influence (SI), and voluntariness of use (VOU). It is a descriptive and inferential statistics evaluation. The Survey is the students' questionnaire being based on the UTAUT theory modified to the learning process, but including the same sub tests. The survey consisted of a scale of four: strongly disagree (1), disagree (2), agree (3), and strongly agree (4). It is constituted of students' perceptions regarding the learning process, how they perceive the learning, and how motivated they are during English lessons.

Moreover, the qualitative part was made up of three qualitative questions, including the barriers, advantages, and disadvantages of using computer technologies in English classes where the highest means were chosen. Results were distributed in four main categories followed by sub categories. Answers were categorized and percentages were added. The researcher started by coding and entering the data as collected throughout students' questionnaire. After entering the data, the researcher and an expert analyzed and compared the results between the private and public university using the SPSS statistics program.

# 3.5.2 Consent Forms

IRB approval was received from the American University of Beirut board on the 26<sup>th</sup> of June 2015. First, the selected universities were contacted by phone to inform

students and instructors about the study and acquire their permission to participate in the research. Subsequently, the researcher visited the universities and handed in the sealed envelopes containing the consent forms to the universities. A period of 48 hours was prearranged with instructors to decide on their own whether they would like to permit their students to fill in a consent form and participate in the study or not. After the 48-hour period was over, the researcher visited the universities to distribute the surveys and collect them.

#### 3.5.3 Confidentiality

Before the beginning of the study, the researcher ensured that information is confidential and names are not important. The study had an educational purpose, and it is not apprehended to evaluate any of the learners in any particular university. Then, the researcher explained that the distributed questionnaires evaluate their feedback regarding the use of computer technology in their classrooms. The transcribed material was then analyzed among learners.

#### **3.6 Data Analysis**

#### 3.6.1 Quantitative Analysis

To analyze the results in the Questionnaire, SPSS Statistics 22 was used. Students who participated in the study were only 553 participants, ANOVA was not utilized. Descriptive analysis helps us find the frequencies, percentages, means, and standard deviations; it is the most appropriate and important statistical procedure in this case. Frequencies were analyzed for the level of expertise and level of using computer technologies and training in the use of computer technology in English language

classes. For the practices, frequencies were also calculated for both frequently used application and skills.

Moreover, while comparing the students' perceptions between AUB, private sector, and LU, public sector. Similarities indicated similar views and differences will prove the opposite. The independent sample t-test was used for each sub score to examine the perceptions of students using the descriptive for UTAUT items (PE, EE, VOU, FC, and SI). The chi square was used to calculate gender differences among the variables previously specified.

#### 3.6.2 Qualitative Analysis

Thematic analysis requires the researcher to identify themes and subthemes in the study. The themes are obtained from participants' responses as answers to the research questions. Some of the themes for barriers could be lack of training, technical problems, lack of encouragement, and financial problems. For the advantages, active learning, enhancing communication skills, enhancing learning skills, and easy access to more up-to-date information presented the four themes. As for the disadvantages, distraction, time, decrease use of books, and no interaction and communication indicated the four themes. Sub themes included the suggested barriers, advantages, and disadvantages. Percentiles were used to analyze the three open ended questions in the study. Gall et al. (2014) defines member checking as "the process of having field participants review research procedures and statements in the research report for accuracy and completeness" (p. 289). The researcher reviewed the data collected from the open ended questions to guarantee the absence of any misinterpretation of the

participants' answers and more accurate and authentic findings (Gall et al., 2014; Shenton, 2004).

Shenton (2004) recommends that researchers seek peer or colleague scrutiny of their research studies which sheds light on areas that are blind to the researcher being observed from a detached party. The researcher accordingly shared the research findings and grounded themes with an expert and used the feedback to refine the methodology and support the argument.

# **CHAPTER 4**

# RESULTS

Two universities agreed to participate in the study. The participating universities were AUB and Lebanese university. The following table presents the distribution of participating students in each university.

### 4.1 AUB &LU Demographics

Table 1

AUB & LU Demographics

		University Type * Gender Cross tabulation				
	_	Frequency	Percent			
	Female	141	47.6			
AUB Male Total	155	52.4				
	Total	296	100.0			
	Female	184	71.0			
LU	Male	75	29.0			
	Total	259	100.0			

Table 1 shows the demographics for both universities, AUB University participants (N = 296) include (N = 141 Females vs. N = 155 males), whereas, LU participants (N = 259) include (N = 184 Females vs. N = 75 males).

### 4.2 Question 1 Results by Frequency and Percentages

The first question raised in the present study investigated the participants' level of use and expertise in computer technology.

#### 4.2.1 Level of Expertise

#### Table 2

Descriptive statistics (frequency and percentages), university, and level of expertise in using computer technology

		Level	Level of expertise (Frequency & Percentage)				
		No	Beginner	Intermediate	Good	Expert	Total
		experience	%(Freq)	%(Freq)	% (Freq)	%	% (Freq)
		% (Freq)				(Freq)	
University	American University	7 (2)	74(04)	25 0 (74)	56 4(167)	10 9/22)	100 0(206)
Туре	of Beirut	., (2)	/(21)	20.0 (14)	50.4(107)	10.0(02)	100.0(200)
	Lebanese University	5.0 (13)	14.7 (38)	25.9 (67)	46.7(121)	7.7(20)	100.0(259)

Table 2 reveals the levels of expertise in using computer technologies; both universities had their highest frequencies for the Good levels of expertise with 56.4% of responses for AUB (N = 167) and 46.7% for LU (N = 121), while the lowest frequency was also similar, for both universities scored for having no experience at all with 0.7% for AUB (N = 2), and 5% for LU (N = 13).

As for the frequency of using computer technologies, the results are shown in Table 3 which reveals the following aspects of interest.

#### 4.2.2 Level of Using Computer Technologies

#### Table 3

Descriptive statistics (frequency and percentages), university, and level of using computer technology

		Lev	Level of using (Frequency & Percentage)				
		Never	Rarely	Sometimes	Frequently	Always	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	1.4 (4)	4.7 (14)	22.6 (67)	44.3(131)	27.0(80)	100.0(296)
	Lebanese University	6.6 (17)	11.2 (29)	40.2 (104)	23.6(61)	18.5(48)	100.0(259)

Table 3 shows different trends between the two universities in terms of their highest reported frequencies of using technology. Specifically, while 44.3% of the responses for AUB (N = 131) went to frequent use, 40.2% for LU (N = 104) was shown for sometimes, as for the lowest percentile and frequency for computer technology came for both universities for never using technology with a low percentile of 1.4% for AUB (N = 4) and 6.6% for LU (N = 17).

# 4.3 Question 2 Results by Frequency and Percentages

The second question raised in the study investigated the perceptions of the participating students regarding their training and use of computer technology in their English language classes. The results are shown in Table 4.

#### 4.3.1 Training Sessions

# Table 4

Descriptive statistics (frequency and percentages), university, and perceptions of training in computer technology

			Training				
		No	1	2	3	>3	Total
		Session	Session	Sessions	Sessions	Sessions	%(Freq)
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
University	American University	66.2	9.5 (28)	6 8 (20)	6 1(18)	11 5(34)	100 0(206)
Туре	of Beirut	(196)	9.5 (20)	0.0 (20)	0.1(10)	11.5(34)	100.0(290)
	Lebanese University	56.4	11.2 (29)	E 0 (4E)		00 0/E 4)	100.0(259)
		(146)		5.8 (15)	<b>σ.</b> δ(15)	20.8(54)	

Table 4 above presents the levels of participation in computer training sessions during the last three years; both AUB & LU major respondents revealed having no training sessions with 66.2% of for AUB (N = 196), and 56.4% for LU (N = 146), as for the lowest percentile and frequency for training sessions for AUB was shown for attending 3 sessions (N = 18) while in LU with (N = 15) was shown for attending 2 and 3 sessions each.

#### 4.3.2 Word

#### Table 5

Descriptive statistics (frequency and percentages), university, and use of the word processing program

			Word			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of	41.6 (123)	49.3 (146)	5.4(16)	3.7(11)	100.0(296)
	Beirut Lebanese University	18.5 (48)	40.2 (104)	29.7(77)	11.6(30)	100.0(259)

Table 5 reveals the usage of word application on a scale of daily, weekly,

monthly, or with no usage of the application. In AUB, we can notice the high frequency

of usage of the application with the highest frequency for weekly usage with 49.3%

(N=146) nearly half of the respondents and  $2^{nd}$  highest response was for daily usage

with 41.6% (*N*=123).

# 4.3.3 Web Search

Table 6

Descriptive statistics (frequency and percentages), university, and use of the Web Search program

			WebSearch			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	90.9 (269)	7.8 (23)	1(3)	1.0(1)	100.0(296)
	Lebanese University	79.2 (205)	14.3 (37)	3.1(8)	3.5(9)	100.0(259)

What is shown in Table 6 is that the usage of web search application in AUB was unanimous for daily usage with 90.9% (N =269), nonetheless 7.8% (N=23) for weekly

usage. Whereas, in LU the same high percentage was shown to daily usage with 79.2% (N=205), and that to weekly with 14.3% (N=23).

### 4.3.4 Multimedia

Table 7

Descriptive statistics (frequency and percentages), university, and use of the Multimedia program

			Multimedia				
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
University Type	American University of Beirut	73.3 (217)	16.2 (48)	6.1(18)	4.4(13)	100.0(296)	
	Lebanese University	66.8 (173)	15.1 (39)	8.5(22)	9.7(25)	100.0(259)	

Table 7 clearly reveals that multimedia is widely used on daily bases with a 73.3% for AUB (N=217), and 66.8% for LU (N=173), followed by the 2<sup>nd</sup> highest responses was for weekly usage attaining 16.2% for AUB (N=48), and 15.1% for LU (N=39).

#### 4.3.5 Presentation

#### Table 8

Descriptive statistics (frequency and percentages), university, and use of Presentation

			Presentation			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University	American University of	10.8	45.3	20 5/11 1)	5 A/AG)	100.0(296)
Туре	Beirut	(32)	(134)	30.3(114)	5.4(10)	
	Lebanese University	5.0 (13)	20.8 (54)	48.6(126)	25.5(66)	100.0(259)

In Table 8 the frequency of using presentation was noticed differently for the highest percentile in both universities, whereas in AUB the highest percentile was shown for weekly usage with 45.3% (N=134), followed by monthly usage with 38.5% (N=114). In LU the highest percentile was shown for monthly usage with 48.6% (N=126), while the second highest frequency with 66 responses was shown for never using with 25.5%.

#### 4.3.6 Database

#### Table 9

Descriptive statistics (frequency and percentages), university, and use of the Database program.

			Database				
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
University	American University of	19.3	36.1	25 2(75)	19.3(57)	100.0(296)	
Туре	Beirut	(57)	(107)	25.3(75)			
	Lebanese University	11.2	25.1		27.4(00)	100.0(259)	
		(29)	(65)	20.0(09)	37.1(96)		

As shown in Table 9, there was a huge difference between the two universities in database responses usage where in AUB responses came highly for weekly usage with 36.1% (N =107), while in LU the highest percentile scored for never with 37.1% (N=96).

# 4.3.7 Spreadsheet

# Table 10

Descriptive statistics (frequency and percentages), university, and use of the Spreadsheet program

		Spreadsheet				-
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University	American University of	10.1	30.1	20 1/96)	20 7(01)	100.0(296)
Туре	Beirut	(30)	(89)	29.1(00)	30.7(91)	
	Lebanese University	5.8 (15)	15.4 (40)	26.3(68)	52.5(136)	100.0(259)

Table 10 exhibits the frequency usage of spreadsheet where in AUB the highest usage did not differ in the top 3 places as the difference was unnoticeable with 30.7% for never (N=91), followed directly by weekly usage with 30.1% (N=89), and monthly usage with 29.1% (N=86). In LU, more than half of the respondents stated never using spreadsheet with 52.5% (N=136), and 26.3% (N=68) for monthly usage.

### 4.3.8 Web Design

Table 11

Descriptive statistics (frequency and percentages), university, and use of the Web Design program

			WebDesign				
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
University Type	American University of Beirut	6.8 (20)	17.6 (52)	25.0(74)	50.7(150)	100.0(296)	
	Lebanese University	4.2 (11)	12.0 (31)	31.7 (82)	52.1(135)	100.0(259)	

Table 11 displays web design usage in both universities, which came in the same direction as the highest percentile was noticed for never with 50.7% (N=150) for AUB, and 52.1% (N=135) for LU.

### 4.3.9 Power Point Presentation

Table 12

Descriptive statistics (frequency and percentages), university, and use of the PowerPoint presentation

		Pptpresentation				_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	15.9 (47)	35.8 (106)	43.2(128)	5.1(15)	100.0(296)
	Lebanese University	5.4 (14)	20.5 (53)	55.2 (143)	18.9(49)	100.0(259)

Table 12 displayed the usage of PPT, in AUB the highest percentile was scored for monthly usage with 43.2% (N=128), followed by weekly usage with 35.8% (N=106). Likewise in LU, the highest percentile also was for monthly usage with more than half of respondents 55.2% (N=143) followed by weekly usage with 20.5% (N=53).

# 4.3.10 Email

#### Table 13

Descriptive statistics (frequency and percentages), university, and use of e-mail.

			Email			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of	02 0 (279)	A A (42)	4.0/2)	0 7(2)	100.0(296)
	Beirut	93.9 (270)	4.4 (13)	1.0(3)	0.7(2)	
	Lebanese University	43.6 (113)	27.8 (72)	22.8 (59)	5.8(15)	100.0(259)

In Table 13, we can easily notice that for e-mail usage the majority in AUB 93.9% (N = 278) registered for daily usage, while in LU the highest percentile went also to daily usage with 43.6% (N = 113). However, weekly was shown with 27.8% (N = 72), and followed by monthly with 22.8% (N = 59).

# 4.3.11 Language Software

Table 14

Descriptive statistics (frequency and percentages), university, and use of the Language Software.

		L	Langsoftware			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University	American University of	27.4	25.0	19 6(55)	20 1/96)	100.0(296)
Туре	Beirut	(81)	(74)	10.0(55)	29.1(00)	
	Lebanese University	22.4	24.3	22.0	04.0(04)	400 0/050)
		(58)	(63)	(57)	31.3(81)	100.0(259)

Table 14 shows the usage of Language software, where in AUB the percentiles were distributed among all categories with a slight advance for never with 29.1% (N=86), followed by daily with 27.4% (N=81). In LU, the same trend occurred with never topping with 31.3% (N=81) followed by weekly with 24.3% (N=63).

#### 4.3.12 Blogs

# Table 15

Descriptive statistics (frequency and percentages), university, and use of Blogs

	-		Blogs			-
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University	American University of	23.3	24.7	22 6(67)	20 4/97)	100.0(296)
Туре	Beirut	(69)	(73)	22.0(07)	29.4(07)	
	Lebanese University	20.5	16.6	17.4	45 0(440)	400 0/050)
		(53)	(43)	(45)	45.6(118)	100.0(259)

In Table 15 for usage of Blogs, we can notice the even distribution in all categories for AUB with a slight advantage to never with 29.4% (N = 87) followed by weekly 24.7% (N = 73), daily 23.3% (N = 69) and monthly 22.6% (N = 67), while in LU the highest percentile was also for never with 45.6% (N = 118) followed by daily with a noticeable gap with 20.5% (N = 53).

#### 4.3.13 Wikis

Table 16

Descriptive statistics (frequency and percentages), university, and use of Wikis

			Wikis			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of	22.8 (100)	26.9 (100)	13 5(40)	15 0(47)	100.0(296)
	Beirut	33.8 (100)	30.0 (109)	13.3(40)	13.9(47)	
	Lebanese University	28.2 (73)	26.6 (69)	17.8 (46)	27.4(71)	100.0(259)

Table 16 present the usage for Wikis, in AUB weekly usage topped with 36.8% (*N*=109), followed directly by daily usage with 33.8% (*N*=100), while in LU the daily

topped with 28.2% (N=73) followed closely by never with 27.4% (N=71), and weekly with 26.6% (N=69), lastly came monthly usage with 17.8% (N=46).

# 4.3.14 Online Assignments

### Table 17

Descriptive statistics (frequency and percentages), university, and use of online assignments

			Onlineassign			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	37.2 (110)	45.9 (136)	8.8(26)	8.1(24)	100.0(296)
	Lebanese University	13.1 (34)	21.6 (56)	31.3 (81)	34.0(88)	100.0(259)

Table 17 clearly shows that online assignments usage in AUB was for weekly usage with 45.9% (N=136), next comes daily with 37.2% (N=110). While in LU never topped with 34% (N=88), with monthly in second place with 31.3% (N=81) and finally weekly with 21.6% (N=56).

# 4.3.15 Video Conferencing

#### Table 18

Descriptive statistics (frequency and percentages), university, and use of video conferencing

		Videoconf				
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of	18 2 (54)	23 3 (60)	22 6(67)	35 8(106)	100.0(296)
	Beirut	10.2 (34)	23.3 (03)	22.0(07)	55.0(100)	
	Lebanese University	13.1 (34)	12.0 (31)	21.6 (56)	53.3(138)	100.0(259)

Table 18 represents the usage of video conferencing where both universities registering high scores for never with 35.8% for AUB (N=106), and 53.3% for LU (N=138). The lowest percentile for AUB was for daily usage with 18.2% (N=54), and weekly for LU with 12% (N=31).

# 4.3.16 Online Field Trips

# Table 19

Descriptive statistics (frequency and percentages), university, and use of online field trips

		onlineFT				<u>-</u>
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	5.1 (15)	7.8 (23)	20.9(62)	66.2(196)	100.0(296)
	Lebanese University	5.8 (15)	8.5 (22)	14.7 (38)	71.0(184)	100.0(259)

Table 19 clarifies that online field trips usage was overwhelming scored for never by both universities with 66.2% (N=196) for AUB, and 71% for LU (N=184). However, the same rank was found for the rest of categories with monthly topping in the 2nd position, followed by weekly and least percentile went to daily for both universities.

#### 4.3.17 Native Online Conversations

#### Table 20

Descriptive statistics (frequency and percentages), university, and use of native conversations online

			Nativeconv			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
University Type	American University of	33.8 (100)	11 8 (35)	12 8(38)	<i>A</i> 1 6(123)	100.0(296)
	Beirut	33.8 (100)	11.0 (55)	12.0(30)	41.0(123)	
	Lebanese University	31.7 (82)	11.6 (30)	16.2 (42)	40.5(105)	100.0(259)

Table 20 clearly clarifies that never using native conversations online topped for both universities with 41.6% for AUB (N=123), and 40.5% (N=105), followed by daily usage as the 2nd highest percentile for both with 33.8% (N= 100) for AUB, and 31.7% (N = 82) for LU.

# 4.3.18 Word - Writing

Table 21

Descriptive statistics (frequency and percentages, university, and use of the Word processing in Writing

		Wo	WordW		
		No	Yes	Total	
		%(Freq)	%(Freq)	%(Freq)	
University Type	American University of Beirut	22.6(67)	77.4(158)	100(296)	
	Lebanese University	32.4(84)	67.6(175)	100(259)	

Table 21 reveals most frequent language skill used for word processing, whereas, in AUB 77.4% (N=158) positively responded vs. 67.6% (N=175) for LU, on the other

hand those who negatively responded in AUB scored 22.6% (N=67) vs. 32.4% (N=84) for LU.

### 4.3.19 Web - Reading

### Table 22

Descriptive statistics (frequency and percentages), university, and use of the Web in Reading

		We	WebR		
		No Yes		Total	
		%(Freq)	%(Freq)	%(Freq)	
University Type	American University of Beirut	23.6(70)	76.4(226)	100(296)	
	Lebanese University	30.1(78)	69.9(181)	100(259)	

In table 22, the results prevail high percentages for respondents stating positively in

both universities, with 76.4% for AUB (N=226) vs. 69.9% for LU (N=181).

# 4.3.20 Multimedia - Listening

#### Table 23

Descriptive statistics (frequency and percentages), university, and use of the Multimedia program in Listening

		Mul	Multim.L		
		No	Yes	Total	
		%(Freq)	%(Freq)	%(Freq)	
University Type	American University of Beirut	47.0(139)	53.0(157)	100(296)	
	Lebanese University	43.2(112)	56.8(147)	100(259)	

Table 23 exhibits the highest frequency for Multimedia in AUB came in close

percentages whilst 53% (N=157) of respondents stated yes, while 47% (N=139)

negatively replied, likewise for LU with relative near percentiles, 56.8% (N=147) stating yes vs. 43.2% (N=112) stating no.

### 4.3.21 Presentation - Speaking

# Table 24

Descriptive statistics (frequency and percentages), university, and use of Presentation in speaking

		Pres	Present.S	
		No Yes		Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	44.6(132)	55.4(164)	100(296)
	Lebanese University	53.3(138)	46.7(121)	100(259)

Table 24 clearly shows that there is a difference in both universities when tackling the highest frequency used for presentation, where in AUB 55.4% responded positively vs. 44.6% responded negatively, while in LU those who stated yes scored 46.7% vs. 53.3% stated negatively.

# 4.3.22 Database - Reading

# Table 25

Descriptive statistics (frequency and percentages), university, and use of the Database program in reading

		DatabaseR		
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	49.3(146)	50.7(150)	100(296)
	Lebanese University	62.5(162)	37.5(97)	100(259)
Table 25 illustrates that in AUB responses almost came equally distributed with a slight advantage for those stating yes with 50.7% (N = 150) vs. 49.3% (N = 146) stating no, while in LU the majority of responses 62.5% (N = 162) registered for no against 37.5% (N = 97) for yes, when asked about the frequency of language skills used for Data base.

# 4.3.23 Spreadsheet - Writing

Table 26

Descriptive statistics (frequency and percentages), university, and use of the Spreadsheet program in writing

		Spre	Spread.W	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	53.0(157)	47.0(139)	100(296)
	Lebanese University	49.8(129)	50.2(130)	100(259)

In Table 26 what is clear is that frequency of Spreadsheet most used language skill registered positively 53% (N=157) vs. 47% stated negatively (N=139) in AUB, while LU percentiles were close with 49.8% (N=129) stated positively vs. 50.2% (N=130) said no.

### 4.3.24 Web Design - Writing

### Table 27

Descriptive statistics (frequency and percentages), university, and use of the Web Design program in writing

		Web.	Web.des.W	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	56.4(167)	43.6(129)	100(296)
	Lebanese University	52.1(135)	47.9(124)	100(259)

Table 27 clearly shows the highest percentile for web design frequent use scored for no responses with 56.4% (N=167) and 43.6% (N=129) stating yes in AUB vs. 52.1% (N=135) stating no and 47.9% (N=124) stating yes in LU.

# 4.3.25 Power Point - Writing

Table 28

Descriptive statistics (frequency and percentages), university, and use of the PowerPoint program in writing

		Рр	Ppt.W	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	53.4(158)	46.6(138)	100(296)
	Lebanese University	51.0(132)	49.0(127)	100(259)

In table 28 what is noticeable for both universities is that the highest frequency scored for those stating yes with 53.4% (N=158) in AUB vs. 51% (N=132) in LU, with 46.6% (N=138) in AUB stating no vs. 49% (N=127) in LU.

## 4.3.26 Email - Writing

#### Table 29

Descriptive statistics (frequency and percentages), university, and use of the e-mail in writing

		em	emailW	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	29.7(88)	70.3(208)	100(296)
	Lebanese University	31.7(82)	68.3(177)	100(259)

In table 29 what is shown is the highest percentile of positivity for e-mail frequency

usage with 70.3% (*N* =208) for AUB, and 68.3% (*N*=177) for LU vs. 29.7% (*N*=88) said no for AUB, and 31.7% (*N*=82) said no for LU.

### 4.3.27 Language Software - Writing

### Table 30

Descriptive statistics (frequency and percentages), university, and use of the Language software program in Writing

		Lang.	Lang.sof.W	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	58.1(172)	41.9(124)	100(296)
	Lebanese University	56.8(147)	43.2(112)	100(259)

Table 30 represents the highest frequency of Language software in both

universities, where the results came mostly for respondents stating negatively with

58.1% (*N*=172) for AUB and 56.8% (*N*=147) for LU, vs. 41.9% (*N*=124) in AUB for responding positively and 43.2% (*N*=112) in LU.

# 4.3.28 Blogs - Writing

# Table 31

Descriptive statistics (frequency and percentages), university, and use of the Blogs program in writing

		Blog	Blogs.R	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	40.9(121)	59.1(175)	100(296)
	Lebanese University	43.6(113)	56.4(146)	100(259)

In table 31 those stating yes scored the highest in both universities with 59.1%

(N=175) for AUB and 56.4% (N=146) for LU, vs. stating no registered 40.9% (N=146)

121) for AUB, and 43.6% (*N*= 113) for LU.

# 4.3.29 Wikis - Reading

Table 32

Descriptive statistics (frequency and percentages), university, and use of the Wikis program in reading

		Wil	kis.R	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut Lebanese University	31.8(94) 31.7(82)	68.2(202) 68.3(177)	100(296) 100(259)

In table 32 what is noticeable is that same trend of positivity for Wikis was seen in both universities with almost the same percentile with 68.2% (N=202) for AUB, and 68.3% (N=177) for LU, While those stating no 31.8% (N=94) for AUB, and 31.7% (N=82) for LU.

### 4.3.30 Online Assignments - Writing

Table 33

Descriptive statistics (frequency and percentages), university, and use of the online assignments in writing

		onlin.	ass.W	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	36.5(108)	63.5(188)	100(296)
	Lebanese University	45.6(118)	54.4(141)	100(259)

Table 33 reveals the positivity tendency for online assignments in both universities: 63.5% (N=188) for AUB and 54.4% (N=141) for LU vs. those negatively stating 36.5% (N=108) for AUB and 45.6% (N=118) for LU.

# 4.3.31 Video Conferencing - Listening

### Table 34

Descriptive statistics (frequency and percentages), university, and use of Video Conferencing in listening

		vid.c	vid.conf.L	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	40.9(121)	59.1(175)	100(296)
	Lebanese University	42.5(110)	57.5(149)	100(259)

Table 34 demonstrates that the highest frequency for language skill usage registered positively in both universities: 59.1% (N=175) in AUB vs. 57.5% (N= 149) in LU, while those stating negatively scored 40.9% (N=121) for AUB vs. 42.5% (N=110) for LU.

## 4.3.32 Online Field Trips - Reading

Table 35

Descriptive statistics (frequency and percentages), university, and use of the Online Field Trips in reading

	onlin.FT.R		
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
American University of Beirut	63.2(187)	36.8(109)	100(296)
Lebanese University	68.7(178)	31.3(81)	100(259)

Table 35 clarifies that online field trips usage frequency in AUB registered highly for no responses with 63.2% (N=187) vs. 36.8% (N=109) saying yes, while in LU 68.7% (N=178) said no with only 31.3% (N=81) said yes.

### 4.3.33 Native Online Conversations - Speaking

### Table 36

Descriptive statistics (frequency and percentages), university, and use of Native Online Conversations in speaking

		Native	Conv. S	
		No	Yes	Total
		%(Freq)	%(Freq)	%(Freq)
University Type	American University of Beirut	51.4(152)	48.6(144)	100(296)
	Lebanese University	63.3(164)	36.7(95)	100(259)

Table 36 shows the Native Online Conversations highest frequency was registered highly for negative responses for both universities: 51.4% (N=152) in AUB and 63.3% (N=164) in LU, vs. those stating yes scored 48.6% (N=144) for AUB, and 36.7% (N=95) for LU.

# 4.4 Question 3 Results by Frequency and Percentages

Question 3 looked differences between students' perceptions in the (AUB) and the public sector (LU), regarding the use of computer technologies in English language classes. The notion of use included performance expectancy (PE), (EE), (FC), (SI), and (VU). Results are reported below.

#### 4.4.1 Differences Between Students Perceptions in the private (AUB) and the public

# sector (LU)

### Table 37

### Descriptive Statistics (Mean and SD) and t values by University

	Group Statistics					
		Ν	Male	Female	Mean	
PE	American University of Beirut	296	155	141	3.2603	
	Lebanese University	259	75	184	3.2809	
	Total	555	230	325	3.2706	
EE	American University of Beirut	296	155	141	2.9582	
	Lebanese University	259	75	184	3.1217	
	Total	555	230	325	3.0399	
FC	American University of Beirut	296	155	141	2.9846	
	Lebanese University	259	75	184	3.0935	
	Total	555	230	325	3.0390	
SI	American University of Beirut	296	155	141	2.7456	
	Lebanese University	259	75	184	2.8188	
	Total	555	230	325	2.7822	
VOU	American University of Beirut	296	155	141	2.5651	
	Lebanese University	259	75	184	2.5290	
	Total	555	230	325	2.5470	

Table 37 presents the group statistics results of T-Test & Descriptive Statistics for AUB & LU with AUB (N = 296), and LU (N = 259).

The highest mean was shown for PE (M=3.2706, SD = 0.78) in both universities followed by EE (M=3.0399, SD = 1.02), next comes FC (M=3.0390, SD =0.85) with mean higher than both SI (M= 2.7822, SD = 1.23) and VU (M=2.5470, SD = 1.06) holding the least mean average consecutively. AUB has shown greater mean value than LU in FC where LU shown higher Mean than AUB in EE, SI &, VU.

#### 4.5 Question 4 Results by Gender

Question 4 interpreted the relationship between genders and the level of expertise and the level of using and practices regarding the use of computer technologies in English Language classes. Results are reported as follow.

## 4.5.1 Level of Expertise

Table 38

Descriptive statistics (frequency and percentages) by gender, university type, and level of expertise in using computer technology

		Ex	Expertise Frequency & Percentage				
		No experience	Beginner	Intermediate	Good	Expert	Total
		% (Freq)	%(Freq)	%(Freq)	% (Freq)	%	% (Freq)
						(Freq)	
	AUB Female	0.0 (0)	4.4 (13)	13.2 (39)	27.4 (81)	2.7 (8)	47.6 (141)
	Male	.7 (2)	2.7 (8)	11.8(35)	29.1(86)	8.1(24)	52.4(155)
	Total	.7 (2)	7.1 (21)	25.0 (74)	56.4(167)	10.8(32)	100.0(296)
	Chi Square ***p=0.02	10.91					
LU	Female	3.1 (8)	12.7 (33)	17.4 (45)	35.5 (92)	2.3 (6)	71.0 (184)
	Male	1.9 (5)	1.9 (5)	8.5(22)	11.2(29)	5.4(14)	29.0(75)
	Total	5.0 (13)	14.7 (38)	25.9 (67)	46.7(121)	7.7(20)	100.0(259)
	Chi Square ***p=0.001	23.51					

According to the chi square analysis shown in table 38, since the p-value for AUB & LU is less than our chosen significance level  $\alpha = .05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Expertise in both universities. There was a significant association between Gender and Expertise in AUB,  $X^2(3, N = 296) = 10.91$ , p = .02. There was a significant association between Gender and Expertise and Expertise in LU,  $X^2(4, N = 259) = 23.51$ , p < .001.

# 4.5.2 Level of using computer technologies:

### Table 39

Descriptive statistics (frequency and percentages) by gender, university type, and level of using computer technology

			Use Frequency & Percentage				
		Never Rarely Sometimes Frequently Always		Total			
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	AUB Female	.7 (2)	3.4 (10)	9.5 (28)	23.3 (69)	10.8 (32)	47.6 (141)
	Male	.7 (2)	1.4 (4)	13.2(39)	20.9(62)	16.2(48)	52.4(155)
	Total	1.4 (4)	4.7 (14)	22.6 (67)	44.3(131)	27.0(80)	100.0(296)
	Chi Square p=0.12	7.30					
LU	Female	4.2(11)	8.9 (23)	30.1 (78)	17.0 (44)	10.8 (28)	71.0 (184)
	Male	2.3 (6)	2.3 (6)	10.0(26)	6.6(17)	7.7(20)	29.0(75)
	Total	6.6 (17)	11.2 (29)	40.2 (104)	23.6(61)	18.5(48)	100.0(259)
	Chi Square p=0.20	5.89					

According to the chi square analysis shown in table 39, since the p-value (p= .12 in AUB &p=.20 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and use. Based on the results, we can state the following:

No association was found between gender and Use in AUB  $X^2(4, N = 296) =$ 

$$7.30, p = .12$$

No association was found between gender and Use in LU  $X^2(4, N = 259) =$ 5.89, p = .20.

# 4.5.3 Training sessions

## Table 40

Descriptive statistics (frequency and percentages) by gender, university type, a	and
perceptions of training in computer technology	

			Training Frequency & Percentage					
			No Session	1 Session	2 Sessions	3 Sessions	>3 Sessions	Total
			%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	AUB	Female	30.7 (91)	5.4 (16)	3.0 (9)	3.0 (9)	5.4 (16)	47.6 (141)
		Male	35.5 (105)	4.1 (12)	3.7(11)	3.0(9)	6.1(18)	52.4(155)
	٦	otal	66.2 (196)	9.5 (28)	6.8 (20)	6.1(18)	11.5(34)	100.0(296)
	Chi p=	Square 0.873	1.23					
LU	Fe	emale	39.4 (102)	8.1 (21)	4.6 (12)	3.9 (10)	15.1 (39)	71.0 (184)
	1	Male	17.0 (44)	3.1 (8)	1.2(3)	1.9(5)	5.8(15)	29.0(75)
	٦	otal	56.4 (146)	11.2 (29)	5.8 (15)	5.8(15)	20.8(54)	100.0(259)
	Chi p:	Square =0.92	.88					

The p-value as shown in table 40 (p= .873 in AUB &p=.92 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and use. No association was found between gender and Training in AUB,  $X^2(4, N =$ 296) = 1.23, p = .873. No association was found between gender and Training in LU  $X^2(4, N = 259) = 0.88, p = .920.$ 

### 4.5.4 Word

# Table 41

			Word			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	18.2 (54)	25.7 (76)	2.0 (6)	1.7 (5)	47.6 (141)
AUB	Male	23.3 (69)	23.6(70)	3.4(10)	<ul> <li>Never</li> <li>%(Freq)</li> <li>1.7 (5)</li> <li>2.0(6)</li> <li><b>3.7(11)</b></li> <li>8) 8.5 (22)</li> <li>3.1(8)</li> <li><b>11.6(30)</b></li> </ul>	52.4(155)
	Total	41.6 (123)	49.3 (146)	5.4(16)	3.7(11)	100.0(296)
С	hi Square	0.54				
	p=0.473	2.51				
	Female	12.0 (31)	28.2 (73)	22.4 (58)	8.5 (22)	71.0 (184)
LU	Male	6.6 (17)	12.0(31)	7.3(19)	3.1(8)	29.0(75)
	Total	18.5 (48)	40.2 (104)	29.7(77)	11.6(30)	100.0(259)
С	hi Square	4 77				
	P=0.621	1.77				

Descriptive statistics (frequency and percentages) by gender, university type, and use of the word processing program

Since the p-value in table 41 (p= .473 in AUB &p=.621 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and use. Based on the results, we can state the following:

No association was found between gender and Word in AUB,  $X^2(3, N = 296) = 2.51, p = .473$ 

No association was found between gender and Word in LU,  $X^2(3, N = 259) =$ 1.77, p = .621

#### 4.5.5 Web Search

### Table 42

Descriptive statistics (frequency and percentages) by gender, university type, an	d use of
the Web Search program	

			Web_Search	l		_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	43.6 (129)	3.7 (11)	.3 (1)	0 (0)	47.6 (141)
AUB	Male	47.3 (140)	4.1(12)	.7(2)	1.0(1)	52.4(155)
	Total	90.9 (269)	7.8 (23)	1(3)	1.0(1)	100.0(296)
Chi Square		4 47				
i	p=0.473	1.17				
	Female	56.0 (145)	10.4 (27)	2.7 (7)	1.9 (5)	71.0 (184)
LU	Male	23.2 (60)	3.9(10)	0.4(1)	1.5(4)	29.0(75)
	Total	79.2 (205)	14.3 (37)	3.1(8)	3.5(9)	100.0(259)
C	hi Square	0.40				
p=0.536		2.18				

The p-value in table 42 (p= .473 in AUB &p = .536 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & Web search. Based on the results, we can state the following: No association was found between gender and Web search in AUB,  $X^2(3, N = 296) = 1.17, p = .473$ . No association was found between gender and Web search in LU,  $X^2(3, N = 259) = 2.18, p = .536$ 

## 4.5.6 Multimedia

# Table 43

Descriptive statistics (frequency	and percentages)	by gender,	university type,	and use of
the Multimedia program				

			Multimedia			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	33.4 (99)	8.8 (26)	3.0 (9)	2.4 (7)	47.6 (141)
AUD	Male	39.9(118)	7.4(22)	3.0(9)	2.0(6)	52.4(155)
	Total	73.3 (217)	16.2 (48)	6.1(18)	4.4(13)	100.0(296)
С	hi Square	1 11				
	p=0.702	1.41				
	Female	45.9 (119)	11.2 (29)	6.2 (16)	7.7 (20)	71.0 (184)
LU	Male	20.8 (54)	3.9(10)	2.3(6)	1.9(5)	29.0(75)
	Total	66.8 (173)	15.1 (39)	8.5(22)	9.7(25)	100.0(259)
Chi Square		4.04				
	p=0.650	1.64				

For the chi square analysis as shown in table 43, since the p-value (p= .702 in AUB &p = .650 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & multimedia. Based on the results, we can state the following:

No association was found between gender & Multimedia in AUB,  $X^2(3, N =$ 

No association was found between gender & Multimedia in LU,  $X^2(3, N = 259) =$ 1.64, p = .650

#### 4.5.7 Presentation

# Table 44

Descriptive statistics (frequency and percentages) by gender, university type, and use of Presentation

			Presentation			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	4.4 (13)	21.3 (63)	19.3 (57)	2.7 (8)	47.6 (141)
AUB	Male	6.4 (19)24.0(7)10.8 (32)45.3 (1)	24.0(71)	19.3(57)	2.7(8)	52.4(155)
	Total	10.8 (32)	45.3 (134)	38.5(114)	5.4(16)	100.0(296)
С	hi Square	04				
	p=0.815	.94				
	Female	3.1 (8)	15.4 (40)	34.4 (89)	18.1 (47)	71.0 (184)
LU	Male	1.9 (5)	5.4(14)	14.3(37)	7.3(19)	29.0(75)
	Total	5.0 (13)	20.8 (54)	48.6(126)	25.5(66)	100.0(259)
Chi Square		00				
	p=0.844	.82				

The p-value in table 44 (p = .815 in AUB &p=.844 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & presentation.

Based on the results, we can state the following:

No association was found between gender & Presentation in AUB,  $X^2(3, N = 296) = 0.94$ , p = .815.No association was found between gender & Presentation in LU,  $X^2(3, N = 259) = 0.82$ , p = .844

#### 4.5.8 Database

#### Table 45

Descriptive statistics (frequency and	l percentages) l	by gender,	university type,	and use of
the Database program				

			Database			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	7.1 (21)	18.6 (55)	9.8 (29)	12.2 (36)	47.6 (141)
AUB	Male	12.2 (36)	17.6(52)	15.5(46)	7.1(21)	52.4(155)
	Total	19.3 (57)	36.1 (107)	25.3(75)	19.3(57)	100.0(296)
С	hi Square	11.10				
*	**p=0.011	11.19				
	Female	6.9(18)	15.8 (41)	19.3 (50)	29.0 (75)	71.0 (184)
LU	Male	4.2 (11)	9.3(24)	7.3(19)	8.1(21)	29.0(75)
	Total	11.2 (29)	25.1 (65)	26.6(69)	37.1(96)	100.0(259)
С	hi Square	5 55				
	p=0.136	5.55				

Since the p-value in table 45 for AUB is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Database. There was a significant association between Gender and Database in AUB,  $X^2(3, N = 296) = 11.19$ , p = .011. Since the p-value (p=.136 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ , we conclude that there is not enough evidence to suggest an association between gender & Database, thus no association was found between gender & presentation in LU,  $X^2(3, N = 259) = 5.55$ , p = .136. As a result a null hypothesis can be concluded.

#### 4.5.9 Spreadsheet

# Table 46

			Spreadsheet			_	
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
	Female	5.4 (16)	13.5 (40)	11.8 (35)	16.9 (50)	47.6 (141)	
AUB	Male	4.7 (14)	16.6(49)	17.2(51)	13.9(41)	52.4(155)	
	Total	10.1 (30)	30.1 (89)	29.1(86)	30.7(91)	100.0(296)	
Chi Square		4.05					
	p=0.235	4.25					
	Female	2.7 (7)	9.3 (24)	18.9 (49)	40.2 (104)	71.0 (184)	
LU	Male	3.1 (8)	6.2(16)	7.3(19)	12.4(32)	29.0(75)	
	Total	5.8 (15)	15.4 (40)	26.3(68)	52.5(136)	100.0(259)	
С	hi Square	0.00					
*	**p=0.034	8.69					

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Spreadsheet program

As for the chi square analysis as shown in table 46, since the p-value (p=.235 in AUB) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & Spreadsheet. No association was found between gender & Spreadsheet in AUB,  $X^2(3, N = 296) = 4.25$ , p = .235. The p-value for LU is less than our chosen significance level  $\alpha$  = 0.05, there is an association between Gender and Database. There was a significant association between Gender & Spreadsheet in LU,  $X^2(3, N = 259) = 8.69$ , p = .034.

### 4.5.10 Web Design

### Table 47

			Web Design			_	
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
	Female	2.7 (8)	9.8 (29)	11.5 (34)	23.6 (70)	47.6 (141)	
AUB	Male	4.1 (12)	7.8(23)	13.5(40)	27.0(80)	52.4(155)	
	Total	6.8 (20)	17.6 (52)	25.0(74)	50.7(150)	100.0(296)	
C	Chi Square	4.00					
	p=0.575	1.98					
	Female	3.1 (8)	5.4 (14)	22.4 (58)	40.2 (104)	71.0 (184)	
LU	Male	1.2 (3)	6.6(17)	9.3(24)	12.0(31)	29.0(75)	
	Total	4.2 (11)	12.0 (31)	31.7 (82)	52.1(135)	100.0(259)	
C	Chi Square	40.47					
*	**p=0.006	12.47					

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Web Design program

Since the p-value in table 47 (p=.575 in AUB) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & Web design. No association was found between gender & Web design in AUB,  $X^2(3, N = 296) =$ 1.98, p = .575.As a result a null hypothesis can be concluded. Since the p-value for LU is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Web design. Based on the results, we can state the following:

There was a significant association between Gender & Spreadsheet in LU,  $X^2(3, N = 259) = 12.47$ , p = .006.

# 4.5.11 PowerPoint Presentation

# Table 48

			Power point presentation				
		Daily	Weekly	Monthly	Never	Total	
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)	
AUB	Female	7.1 (21)	18.2 (54)	21.3 (63)	1.0(3)	47.6 (141)	
	Male	8.8 (26)	17.6(52)	22.0(65)	4.1(12)	52.4(155)	
	Total	15.9 (47)	35.8 (106)	43.2(128)	5.1(15)	100.0(296)	
C	Chi Square						
	p=0.148	5.35					
	Female	3.9 (10)	15.1 (39)	39.4 (102)	12.7 (33)	71.0 (184)	
LU	Male	1.5 (4)	5.4(14)	15.8(41)	6.2(16)	29.0(75)	
	Total	5.4 (14)	20.5 (53)	55.2 (143)	18.9(49)	100.0(259)	
C	Chi Square	50					
	p=0.919	.50					

Descriptive statistics (frequency and percentages) by gender, university type, and use of the PowerPoint presentation

Since the p-value in table 48 (p= .148, in AUB & p = .919. in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and PPT. Based on the results, we can state the following:

No association was found between gender and PPT in AUB,  $X^2(3, N = 296) =$  5.35, p = .148).

No association was found between gender and PPT in LU,  $X^2(3, N = 259) = 0.50, p = .919$ ).

As a result a null hypothesis can be concluded.

#### 4.5.12 E-mail

### Table 49

Descriptive statistics (frequency and percentages) by gender, university type, and use of email

			Email			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	45.3 (134)	1.7 (5)	0.3 (1)	0.3 (1)	47.6 (141)
AUB	Male	48.6 (144)	2.7(8)	0.7(2)	0.3(1)	52.4(155)
	Total	93.9 (278)	4.4 (13)	1.0(3)	0.7(2)	100.0(296)
С	hi Square	70				
	p=0.867	.12				
	Female	27.4 (71)	20.1 (52)	18.5 (48)	5.0 (13)	71.0 (184)
LU	Male	16.2 (42)	7.7(20)	4.2(11)	0.8(2)	29.0(75)
	Total	43.6 (113)	27.8 (72)	22.8 (59)	5.8(15)	100.0(259)
С	hi Square	0.50				
**	**p=0.035	8.58				

Since the p-value in table 49 (p=.867, in AUB) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender & e-mail. No association was found between gender & e-mail in AUB,  $X^2(3, N = 296) = 0.72, p =$ .867. Since the p-value for LU is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and e-mail. Based on the results, we can state the following: There was a significant association between Gender& e-mail in LU,  $X^2(3, N = 259) = 8.58, p = .035$ ).

### 4.5.13 Language Software

# Table 50

Descriptive statistics (frequency	<sup>,</sup> and percentages)	by gender,	university type,	and use of
the Language Software				

			Language software					
		Daily	Weekly	Monthly	Never	Total		
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)		
AUB	Female	12.8 (38)	11.8 (35)	7.8 (23)	15.2 (45)	47.6 (141)		
	Male	14.5 (43)	13.2(39)	10.8(32)	13.9(41)	52.4(155)		
	Total	27.4 (81)	25.0 (74)	18.6(55)	29.1(86)	100.0(296)		
Chi Square		1.50						
	p=0.677	1.52						
	Female	14.3 (37)	16.6 (43)	15.8 (41)	24.3(63)	71.0 (184)		
LU	Male	8.1 (21)	7.7(20)	6.2(16)	6.9(18)	29.0(75)		
	Total	22.4 (58)	24.3 (63)	22.0 (57)	31.3(81)	100.0(259)		
Chi Square p=0.317		2.52						
		3.53						

Since the p-value in table 50 (p= .677, at AUB &p =.317, in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Language software. Based on the results, we can state the following:

No association was found between gender and Language software in AUB,  $X^2(3, N = 296) = 1.52, p = .677$ . No association was found between gender and Language software in LU,  $X^2(3, N = 259) = 3.53, p = .317$ . As a result a null hypothesis can be concluded.

## 4.5.14 Blogs

# Table 51

Descriptive statistics (frequency and percentages) by gender, university type, and use of Blogs

			Blogs			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
AUB	Female	14.2 (42)	9.1 (27)	10.8 (32)	13.5 (40)	47.6 (141)
	Male	9.1 (27)	15.5(46)	11.8(35)	15.9(47)	52.4(155)
	Total	23.3 (69)	24.7 (73)	22.6(67)	29.4(87)	100.0(296)
Chi Square						
*:	**p=0.041	8.26				
	Female	13.9 (36)	13.1 (34)	8.9 (23)	35.1 (91)	71.0 (184)
LU	Male	6.6 (17)	3.5(9)	8.5(22)	10.4(27)	29.0(75)
	Total	20.5 (53)	16.6 (43)	17.4 (45)	45.6(118)	100.0(259)
Chi Square ***p=0.006		10.44				
		12.41				

Since the p-value in table 51 for AUB & LU is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and blogs in both universities. Thus, based on the results, we can state the following:

There was a significant association between Gender and Blogs in AUB,  $X^2(3, N = 296) = 8.26$ , p = .0041. There was a significant association between Gender and Blogs in LU,  $X^2(3, N = 259) = 12.41$ , p = .006.

### 4.5.15 Wikis

### Table 52

Descriptive statistics (frequency and percentages) by gender, university type, and use of Wikis

			Wikis			_
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	15.5 (46)	17.6 (52)	6.4 (19)	8.1 (24)	47.6 (141)
AUB	Male	18.2 (54)	19.3(57)	7.1(21)	7.8(23)	52.4(155)
	Total	33.8 (100)	36.8 (109)	13.5(40)	15.9(47)	100.0(296)
С	hi Square	22				
	p=0.954	.33				
	Female	17.4 (45)	19.7 (51)	12.4 (32)	21.6 (56)	71.0 (184)
LU	Male	10.8 (28)	6.9(18)	5.4(14)	5.8(15)	29.0(75)
	Total	28.2 (73)	26.6 (69)	17.8 (46)	27.4(71)	100.0(259)
С	hi Square					
	p=0.134	5.58				

Since the p-value in table 52 (p=0.954 in AUB &p =.134 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Wikis. Based on the results, we can state the following:

No association was found between gender and Wikis in AUB,  $X^2(3, N = 296) = 0.33$ , p = .954. No association was found between gender and Wikis in LU,  $X^2(3, N = 259) = 5.58$ , p = .134. As a result a null hypothesis can be concluded.

### 4.5.16 Online Assignments

### Table 53

Descriptive statistics (frequency and percentages) by gender, university type, and use of online assignments

				_		
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	16.9 (50)	22.6 (67)	3.7 (11)	4.4 (13)	47.6 (141)
AUB	Male	20.3 (60)	23.3(69)	5.1(15)	3.7(11)	52.4(155)
	Total	37.2 (110)	45.9 (136)	8.8(26)	8.1(24)	100.0(296)
Chi Square		1.06				
	p=0.787	1.06				
	Female	8.9 (23)	13.9 (36)	24.3 (63)	23.9 (62)	71.0 (184)
LU	Male	4.2 (11)	7.7(20)	6.9(18)	10.0(26)	29.0(75)
Total		13.1 (34)	21.6 (56)	31.3 (81)	34.0(88)	100.0(259)
С	hi Square	2.02				
	p=0.357	3.23				

Since the p-value as shown in table 53(p=.787 in AUB & p=.357 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Online assignments. Based on the results, we can state the following:

No association was found between gender and Online assignments in AUB,  $X^2(3, N = 296) = 1.06, p = .787$ . No association was found between gender and Online assignments in LU,  $X^2(3, N = 259) = 3.23, p = .357$ .

### 4.5.17 Video Conferencing

### Table 54

Descriptive statistics (frequency and percentages) by gender, university type, and use of video conferencing

		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
AUB	Female	8.4(25)	11.8 (35)	10.5 (31)	16.9 (50)	47.6 (141)
	Male	9.8 (29)	11.5(34)	12.2(36)	18.9(56)	52.4(155)
	Total	18.2 (54)	23.3 (69)	22.6(67)	35.8(106)	100.0(296)
Chi Square		20				
	p=0.948	.30				
	Female	8.9 (23)	9.3 (24)	14.3 (37)	38.6 (100)	71.0 (184)
LU	Male	4.2 (11)	2.7(7)	7.3(19)	14.7(38)	29.0(75)
	Total	13.1 (34)	12.0 (31)	21.6 (56)	53.3(138)	100.0(259)
Chi Square p=0.657		1.01				
		1.61				

Since (p=.948 in AUB &p=.657 in LU) in table 54 is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Video Conferencing.

Based on the results, we can state the following:

No association was found between gender and Video Conferencing in AUB,  $X^2(3, N = 296) = 0.36$ , p = 0.948. No association was found between gender and Video Conferencing in LU,  $X^2(3, N = 259) = 1.61$ , p = 0.657. As a result a null hypothesis can be concluded.

### 4.5.18 Online Field Trips

### Table 55

Descriptive statistics (frequency and percentages) by gender, university type, and use of online field trips

				-		
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
AUB	Female	3.0 (9)	4.1 (12)	12.2 (36)	28.4 (84)	47.6 (141)
	Male	2.0 (6)	3.7(11)	8.8(26)	37.8(112)	52.4(155)
	Total	5.1 (15)	7.8 (23)	20.9(62)	66.2(196)	100.0(296)
С	hi Square					
	p=0.132	5.60				
	Female	3.5 (9)	5.8 (15)	10.0 (26)	51.7 (134)	71.0 (184)
LU	Male	2.3 (6)	2.7(7)	4.6(12)	19.3(50)	29.0(75)
	Total	5.8 (15)	8.5 (22)	14.7 (38)	71.0(184)	100.0(259)
Chi Square p=0.708		1.20				
		1.39				

Since the p-value in table 55 (p=.132 in AUB &p =.708 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Online Field Trips. Based on the results, we can state the following:

As a result a null hypothesis can be concluded: No association was found between gender and Online Field Trips in AUB,  $X^2(3, N = 296) = 5.60, p = .132$ . No association was found between gender and Online Field Trips in LU,  $X^2(3, N = 259) =$ 1.39, p = .708.

### 4.5.19 Native Online Conversations

### Table 56

Descriptive st	tatistics (frequency	and percer	ntages) by	gender,	university i	type, d	and i	use of
native conver	sations online							

		Na	-			
		Daily	Weekly	Monthly	Never	Total
		%(Freq)	%(Freq)	%(Freq)	%(Freq)	%(Freq)
	Female	18.9 (56)	5.7 (17)	6.8 (20)	16.2 (48)	47.6 (141)
AUD	Male	14.9 (44)	6.1(18)	6.1(18)	25.3(75)	52.4(155)
	Total	33.8 (100)	11.8 (35)	12.8(38)	41.6(123)	100.0(296)
Chi Square		0.05				
	p=0.077	6.85				
	Female	20.8 (54)	7.3 (19)	12.4 (32)	30. (79)	71.0 (184)
LU	Male	10.8 (28)	4.2(11)	3.9(10)	10.0(26)	29.0(75)
	Total	31.7 (82)	11.6 (30)	16.2 (42)	40.5(105)	100.0(259)
С	hi Square	2.20				
	p=0.337	3.38				

Since the p-value as shown in table 56 (p=.077 in AUB &p=.337 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Native Conversations Online. Based on the results, we can state the following:

No association was found between gender and Native Conversations Online in AUB,  $X^2(3, N = 296) = 6.85$ , p = .077. No association was found between gender and Native Conversations Online in LU,  $X^2(3, N = 259) = 3.38$ , p = .337. As a result a null hypothesis can be concluded.

### 4.5.20 Word Processing - Writing

#### Table 57

\*\*\*P=0.01

	Word (	Writing)	
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	9.4(28)	38.2(113)	47.6(141)
MALE	13.2(39)	39.2(116)	52.4(155)
Total	22.6(67)	77.4(158)	100(296)
Chi Square	1.18		
P=0.276			
LU Female	19.7(51)	51.4(133)	71.0(184)
MALE	12.7(33)	16.2(42)	29.0(75)
Total	32.4(84)	67.6(175)	100(259)

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Word prcessing in Writing

Since the p-value as sown in table 57 (p=.276 in AUB) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Word. No association was found between gender & Word in AUB,  $X^2(1, N = 296) = 1.18, p =$ .276. Since the p-value for LU is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Database. Based on the results, we can state the following: There was a significant association between Gender & Word in LU,  $X^2(1, N = 259) = 6.44, p = .01$ .

### 4.5.21 Web - Reading

### Table 58

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Web in Reading

	Web ( Reading)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	12.2(36)	35.5(105)	47.6(141)
MALE	11.5(34)	40.9(121)	52.4(155)
Total	23.6(70)	76.4(226)	100(296)
Chi Square	.52		
P=0.467			
LU Female	22.8(59)	48.3(125)	71.0(184)
MALE	7.3(19)	21.6(56)	29.0(75)
Total	30.1(78)	69.9(181)	100(259)
Chi Square	1.14		
P=0.284			

Since the p-value in table 58 (p=.467 in AUB &p=.284 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Web. Based on the results, we can state the following:

No association was found between gender and Web in AUB,  $X^2(1, N = 296) = 0.52$ , p = .467. No association was found between gender and Web in LU,  $X^2(1, N = 259) = 1.14$ , p = .284. As a result a null hypothesis can be concluded.

### 4.5.22 Multimedia- Listening

### Table 59

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Multimedia program in Listening

	Multimedia (Listening)		
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	25.7(76)	22.0(65)	47.6(141)
MALE	21.3(63)	31.1(92)	52.4(155)
Total	47.0(139)	53.0(157)	100(296)
Chi Square	5.20		
P=0.276			
LU Female	31.3(81)	39.8(103)	71.0(184)
MALE	12.0(31)	17.0(44)	29.0(75)
Total	43.2(112)	56.8(147)	100(259)
Chi Square	.15		
P=0.690			

Since the p-value in table 59 (p=.276 in AUB &p=.690 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and use. Based on the results, we can state the following:

No association was found between gender and Word in AUB,  $X^2(1, N = 296) = 5.20, p =$ .276. No association was found between gender and Word in LU,  $X^2(1, N = 259) =$ 0.15, p = .690. As a result a null hypothesis can be concluded.

### 4.5.23 Presentation- Speaking

### Table 60

Descriptive statistics (frequency and percentages) by gender, university type, and use of Presentation in speaking

	Presentation (Speaking)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	21.6(64)	26.0(77)	47.6(141)
MALE	23.0(68)	29.4(87)	52.4(155)
Total	44.6(132)	55.4(164)	100(296)
Chi Square	.060		
P=0.793			
LU Female	37.1(96)	34.0(88)	71.0(184)
MALE	16.2(42)	12.7(33)	29.0(75)
Total	53.3(138)	46.7(121)	100(259)
Chi Square	.31		
P=0.570			

Since the p-value as shown in table 60 (p=.793 in AUB &p=.570 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and presentation. Based on the results, we can state the following:

No association was found between gender and Presentation in AUB,  $X^2(1, N = 296) = 0.06$ , p = .793.No association was found between gender and Presentation in LU,  $X^2(1, N = 259) = 0.31$ , p = .570. As a result a null hypothesis can be concluded.

### 4.5.24 Database - Reading

# Table 61

Descriptive statistics (frequency and percentages) by gender,	university type, and use of
the Database program in reading	

	Data base (Reading)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	26.7(79)	20.9(62)	47.6(141)
MALE	22.6(67)	29.7(88)	52.4(155)
Total	49.3(146)	50.7(150)	100(296)
Chi Square	4.84		
***P=0.02			
LU Female	44.0(114)	27.0(70)	71.0(184)
MALE	18.5(48)	10.4(27)	29.0(75)
Total	62.5(162)	37.5(97)	100(259)
Chi Square	.09		
P=0.75			

Since the p-value as shown in table 61 for AUB is less than our chosen significance level  $\alpha = 0.05$ , there is an association between Gender and Database. There was a significant association between Gender and Database in AUB,  $X^2(1, N = 296) =$ 4.84, p = .02. Since the p-value (p = .750 in LU) is greater than ( $\alpha = 0.05$ ), thus no association was found between gender & Presentation in LU,  $X^2(1, N = 259) = 0.09, p =$ .750. As a result, a null hypothesis can be concluded.

### 4.5.25 Spreadsheet - Writing

### Table 62

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Spreadsheet program in writing

	Spreadsheet (Writing)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	24.7(73)	23.0(68)	47.6(141)
MALE	28.4(84)	24.0(71)	52.4(155)
Total	53.0(157)	47.0(139)	100(296)
Chi Square	.17		
P=0.67			
LU Female	35.5(92)	35.5(92)	71.0(184)
MALE	14.3(37)	14.7(38)	29.0(75)
Total	49.8(129)	50.2(130)	100(259)
Chi Square	.01		
P=0.92			

Since the p-value in table 62 (p=.467 in AUB &p=.284 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Spreadsheet. Based on the results, we can state the following:

As a result a null hypothesis can be concluded. No association was found between gender and Spreadsheet in AUB,  $X^2(1, N = 296) = 0.17, p = .670$ . No association was found between gender and Spreadsheet in LU,  $X^2(1, N = 259) =$ 0.01, p = .920.

### 4.5.26 Web Design - Writing

# Table 63

Descriptive statistics (frequency and	percentages)	by gender,	university type,	and use of
the Web Design program in writing				

	Web design (Writing)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	27.0(80)	20.6(61)	47.6(141)
MALE	29.4(87)	23.0(68)	52.4(155)
Total	56.4(167)	43.6(129)	100(296)
Chi Square	.01		
P=0.91			
LU Female	38.6(100)	32.4(84)	71.0(184)
MALE	13.5(35)	15.4(40)	29.0(75)
Total	52.1(135)	47.9(124)	100(259)
Chi Square	1.26		
P=0.26			

Since the p-value as shown in table 63 (p=.910 in AUB &p =.260 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Web design. Based on the results, we can state the following:

No association was found between gender and Web design in AUB,  $X^2(1, N = 296) = 0.01$ , p = .910. No association was found between gender and Web design in LU,  $X^2(1, N = 259) = 1.26$ , p = .260. As a result a null hypothesis can be concluded.

### 4.5.27 PowerPoint - Writing

### Table 64

Descriptive statistics (frequency and percentages) by gender, university type, and use of the PowerPoint program in writing

	PowerPoint Presentation (Writing)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	23.6(70)	24.0(71)	47.6(141)
MALE	29.7(88)	22.6(67)	52.4(155)
Total	53.4(158)	46.6(138)	100(296)
Chi Square	1.50		
P=0.21			
LU Female	36.3(94)	34.7(90)	71.0(184)
MALE	14.7(38)	14.3(37)	29.0(75)
Total	51.0(132)	49.0(127)	100(259)
Chi Square	.01		
P=0.95			

Since the p-value in table 64 (p=.210 in AUB &p =.950 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and PPT.

Based on the results, we can state the following:

No association was found between gender and PPT in AUB,  $X^2(1, N = 296) =$ 1.50, p = .210. No association was found between gender and PPT in LU,  $X^2(1, N = 259) = 0.01$ , p = .950. As a result a null hypothesis can be concluded.

#### 4.5.28 E-mail - Writing

# Table 65

Descriptive statistics (frequency and percentages) by gender, university type, and use of the email in writing

	Email ( Writing)		_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	14.9(44)	32.8(97)	47.6(141)
MALE	14.9(44)	37.5(111)	52.4(155)
Total	29.7(88)	70.3(208)	100(296)
Chi Square	.28		
P=0.59			
LU Female	21.2(55)	49.8(129)	71.0(184)
MALE	10.4(27)	18.5(48)	29.0(75)
Total	31.7(82)	68.3(177)	100(259)
Chi Square	.91		
P=0.33			

Since the p-value as shown in table 65 (p=.590 in AUB &p =.330 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and e-mail. Based on the results, we can state the following:

No association was found between gender and e-mail in AUB,  $X^2(1, N = 296) = 0.28$ , p = .467. No association was found between gender and e-mail in LU,  $X^2(1, N = 259) = 0.91$ , p = .284. As a result a null hypothesis can be concluded.
## 4.5.29 Language Software - Writing

## Table 66

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Language software program in Writing

	Language Soft	_	
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	31.4(93)	16.2(48)	47.6(141)
MALE	26.7(79)	25.7(76)	52.4(155)
Total	58.1(172)	41.9(124)	100(296)
Chi Square	6.81		
***P=0.01			
LU Female	43.6(113)	27.4(71)	71.0(184)
MALE	13.1(34)	15.8(41)	29.0(75)
Total	56.8(147)	43.2(112)	100(259)
Chi Square	5.61		
***P=0.01			

Since the p-value in table 66 for AUB & LU is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Language software in both universities. Thus, based on the results, we can state the following:

There was a significant association between Gender and Language software in AUB,  $X^2(1, N = 296) = 6.81$ , p = .01. There was a significant association between Gender and Language software in LU,  $X^2(1, N = 259) = 5.61$ , p = .01.

## 4.5.30 Blogs - Writing

## Table 67

	Blogs (	Writing)		
	No	Yes	Total	
	%(Freq)	%(Freq)	%(Freq)	
AUB Female	20.9(62)	26.7(79)	47.6(141)	
MALE	19.9(59)	32.4(96)	52.4(155)	
Total	40.9(121)	59.1(175)	100(296)	
Chi Square	1.06			
P=0.30				
LU Female	32.8(85)	38.2(99)	71.0(184)	
MALE	10.8(28)	18.1(47)	29.0(75)	
Total	43.6(113)	56.4(146)	100(259)	
Chi Square	1.70			
P=0.19				

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Blogs program in writing

Since the p-value in table 67 (p=.30 in AUB &p=.19 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Blogs. Based on the results, we can state the following:

No association was found between gender and Blogs in AUB,  $X^2$  (1, N = 296) = 1.06, p = .30. No association was found between gender and Blogs in LU,  $X^2$ (1, N = 259) = 1.70, p = .19. As a result a null hypothesis can be concluded.

### 4.5.31 Wikis - Reading

## Table 68

Descriptive statistics (frequency and percentages) by gender, university type, and use of
the Wikis program in reading

	Wikis ( F	Reading)	_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	17.2(51)	30.4(90)	47.6(141)
MALE	14.5(43)	37.8(112)	52.4(155)
Total	31.8(94)	68.2(202)	100(296)
Chi Square	2.42		
P=0.12			
LU Female	24.7(64)	46.3(120)	71.0(184)
MALE	6.9(18)	22.0(57)	29.0(75)
Total	31.7(82)	68.3(177)	100(259)
Chi Square	2.86		
P=0.09			

Since the p-value in table 68 (p=.12 in AUB &p=.09 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Wikis. Based on the results, we can state the following:

No association was found between gender and Wikis in AUB,  $X^2(1, N = 296) = 2.42, p = .12$ . No association was found between gender and Wikis in LU,  $X^2(1, N = 259) = 2.86, p = .09$ . As a result a null hypothesis can be concluded.

#### 4.5.32 Online Assignments - Writing

#### Table 69

Descriptive statistics (frequency and percentages) by gender, university type, and use of the online assignments in writing

	Online Assignm	nents (Writing)	_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	18.6(55)	29.1(86)	47.6(141)
MALE	17.9(53)	34.5(102)	52.4(155)
Total	36.5(108)	63.5(188)	100(296)
Chi Square	.73		
P=0.39			
LU Female	29.7(77)	41.3(107)	71.0(184)
MALE	15.8(41)	13.1(34)	29.0(75)
Total	45.6(118)	54.4(141)	100(259)
Chi Square	3.5		
P=0.06			

Since the p-value in table 69 (p=.39 in AUB &p=.06 in LU) is greater than our chosen significance level ( $\alpha = 0.05$ ), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Online Assignments. Based on the results, we can state the following:

As a result a null hypothesis can be concluded. No association was found between gender and Online Assignments in AUB,  $X^2(1, N = 296) = 0.73, p = .39$ . No association was found between gender and Online Assignments in LU,  $X^2(1, N = 259)$ = 3.5, p = .06.

## 4.5.33 Video Conferencing - Listening

## Table 70

Descriptive statistics (frequency	and percentages)	by gender,	university ty	ype, and	use of
Video Conferencing in listening					

	Video Conferen	cing (Listening)	_
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	18.2(54)	29.4(87)	47.6(141)
MALE	22.6(67)	29.7(88)	52.4(155)
Total	40.9(121)	59.1(175)	100(296)
Chi Square	.74		
P=0.38			
LU Female	30.5(79)	40.5(105)	71.0(184)
MALE	12.0(31)	17.0(44)	29.0(75)
Total	42.5(110)	57.5(149)	100(259)
Chi Square	.05		
P=0.81			

Since the p-value as shown in table 70 (p=.38 in AUB &p=.81 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Video Conferencing. Based on the results, we can state the following:

As a result a null hypothesis can be concluded. No association was found between gender and Video Conferencing in AUB,  $X^2(1, N = 296) = 0.74, p = .38)$ . No association was found between gender and Video Conferencing in LU,  $X^2(1, N = 259)$ = 0.05, p = .81.

## 4.5.34 Online Field Trips - Reading

## Table 71

-	Online Field T	_	
	No	Yes	Total
	%(Freq)	%(Freq)	%(Freq)
AUB Female	27.0(80)	20.6(61)	47.6(141)
MALE	36.1(107)	16.2(48)	52.4(155)
Total	63.2(187)	36.8(109)	100(296)
Chi Square	4.79		
***P=0.02			
LU Female	49.4(128)	21.6(56)	71.0(184)
MALE	19.3(50)	9.7(25)	29.0(75)
Total	68.7(178)	31.3(81)	100(259)
Chi Square	.20		
P=0.64			

Descriptive statistics (frequency and percentages) by gender, university type, and use of the Online Field Trips in reading

Since the p-value in table 71 for AUB is less than our chosen significance level  $\alpha = 0.05$ , we can reject the null hypothesis, and conclude that there is an association between Gender and Online Field Trips. There was a significant association between Gender and Online Field Trips in AUB,  $X^2$  (1, N = 296) = 4.79, p = .02. Since the p-value (p = .64 in LU) is greater ( $\alpha = 0.05$ ), thus no association was found between gender &Online Field Trips in LU,  $X^2(1, N = 259) = 0.20$ , p = .64. As a result a null hypothesis can be concluded.

#### 4.5.35 Native Online Conversations - Speaking

## Table 72

Descriptive statistics (frequency	and percentages)	by gender,	university type,	and use of
Native Online Conversations in .	speaking			

	Native Online Conver	Native Online Conversations (Speaking)		
	No %(Freq)	Yes %(Freq)	Total %(Freq)	
AUB Female	23.6(70)	24.0(71)	47.6(141)	
MALE	27.7(82)	24.7(73)	52.4(155)	
Total	51.4(152)	48.6(144)	100(296)	
Chi Square	.31			
P=0.57				
LU Female	47.1(122)	23.9(62)	71.0(184)	
MALE	16.2(42)	12.7(33)	29.0(75)	
Total	63.3(164)	36.7(95)	100(259)	
Chi Square P=0.11	2.43			

Since the p-value shown in table 72 (p=.57 in AUB &p=.11 in LU) is greater than our chosen significance level ( $\alpha$  = 0.05), we do not reject the null hypothesis. Rather, we conclude that there is not enough evidence to suggest an association between gender and Native Online Conversations. Based on the results, we can state the following:

No association was found between gender and Native Online Conversations in AUB,  $X^2$  (1, N = 296) = 0.31, p = .57. No association was found between gender and Native Online Conversations in LU,  $X^2$  (1, N = 259) = 0.11, p = .11. As a result a null hypothesis can be concluded.

#### 4.5.36 Differences Between Students Perceptions in the private (AUB) and the public

#### sector (LU) by Gender

Table 73

							95% CI for	Mean	
		AUB			LU		Difference		
	М	SD	n	М	SD	n	_	t	df
PE	3.26	.36	325	3.28	.42	230	020, .03	60	553
	P=.543								
EE	2.95	.48	325	3.12	.52	230	16, .04	-3.75	553
	**P=.001								
FC	2.98	.40	325	3.09	.44	230	10, .03	-2.96	553
	**P=.003								
SI	2.74	.58	325	2.81	.64	230	07, .05	-1.38	553
	P=.167								
VOU	2.56	.52	325	2.52	.56	230	.03, .04	.77	553
	P=.438								

*Descriptive statistics (frequency and percentages) by gender, university type, and use of (PE, EE, FC, SI, and VOU)* 

The APA T-Test table 73 results for descriptive statistics for AUB & LU via Gender reveal the following conclusions: There is no statistically significant mean difference in AUB & LU between males and females regarding PE, SI, & VOU. Since p-value was greater than 0.05 (p = .543 for PE, p = .167 for SI, &p = .438 for VOU), we accept the null hypothesis and conclude that there is no difference between the means whereas a significant difference does not exist.

From the result of Levene's Test for Equality of Variances, we notice that the pvalues for EE (p < .001) & FC (p = .003) are lower than 0.05. Thus, we can reject the null hypothesis is that there is no difference in the variances between the groups and accept the alternative hypothesis that there is a statistically significant difference in the variances between groups.

As for gender segregation, we can notice Males had dominant mean only in VOU where females were dominant in all the rest (PE, EE, FC, & SI).

## 4.6 Question 5 Results

Question 5 discussed the participants' views concerning the advantages, disadvantages, and barriers of using computer technologies in their classes.

## 4.6.1 Barriers to implement computer technology in the class

Table 74

#### Barriers to implement computer technology in the class

ID		AUB		LU	
	Barriers	N	%	N	%
	Students not well trained	22	81%	21	84%
Lack of Training (52	Professors not well trained	3	11%	3	12%
responses)	Both not well trained	2	8%	1	4%
	Total Responses	27	100%	25	100%
	Internet too slow	7	70%	14	21%
	Need more computers	2	20%	36	53%
Technical Problems (78	Technical problems	1	10%	6	8%
responses)	Not enough electricity	0	0%	8	12%
	Not enough plugs	0	0%	4	6%
	Total Responses	10	100%	68	100%
Lack of Encouragement	Lack of encouragement	4	100%	18	100%
(22 responses)	Total Responses	4	100%	18	100%
	Low Financial problems	3	100%	15	54%
	No funding	0	0%	4	13%
Einensiel Drohlang (21	Can't afford	0	0%	3	11%
responses)	Students depend on it	0	0%	3	11%
responses)	Large number of students	0	0%	1	4%
	Chairs are too small	0	0%	1	4%
	Bring their laptops	0	0%	1	4%
	Total Responses	3	100%	28	100%

The conclusion from Table 74 compares the barriers to implement computer technology:

Technical problems topping all factors with 78 responses with AUB (N = 10) & LU (N = 68), followed by Lack of training with 52 responses with AUB (N = 27) & LU (N = 25), then 31 with financial problems responses with AUB (N = 3) & LU (N = 28).

In AUB, the top suggested barriers came for: students are not well trained (N = 22), Internet is too slow (N = 7), and lack of encouragement (N = 4) responses.

In LU, the top suggested barriers came for: need more computers (N = 36), students not well trained (N = 21), lack of encouragement (N = 18).





## 4.6.2 Advantages of using computer technology in English Language

## Table 75

Advantages of using computer technology in English Language

ID		AUB		LU	
Advantages		Ν	%	Ν	%
Active learning (59 responses)	Watch videos	9	18%	1	11%
	PPT presentations	14	28%	1	11%
	Resources for writing	7	14%	0	0%
	Native conversations	8	16%	4	44%
	Auto correct mistakes	7	14%	2	22%
	Translate words	5	10%	1	11%
	Total Responses	50	100%	9	100%
Enhances communication skills (38 responses)	Strengthen communication	8	42%	8	42%
	Easier comm. with instructor	7	37%	7	37%
	Easier comm. with instructor &	1	21%	4	2104
	Total Responses	19	100%	4 19	100%
Enhances English learning skills (380 responses)		17	10070	17	100 / 0
	All English learning skills	26	13%	45	24%
	Reading skills	13	7%	6	3%
	Speaking skills	9	5%	8	4%
	Writing skills	15	8%	22	12%
	Know more vocabulary	26	13%	16	9%
	Listening skills	9	5%	1	1%
	Makes lessons easier	41	21%	27	15%
	Interesting lessons	25	13%	36	19%
	Better understanding	13	7%	24	13%
	Learn more in few minutes	18	9%	0	0%
	Total Responses	195	100%	185	100%
Easy access to more up- to-date information (175 responses)	Access to more information & knowledge	58	55%	46	67%
	More information for my essay	20	19%	0	0%
	Better research resources	22	21%	18	26%
	Track of old assignments	2	2%	0	0%
	Easier to submit	2	2%	0	0%
	Up to date	2	2%	5	7%
	Total Responses	106	100%	69	100%

Table 75 of advantages of using computer technology in English language shows:

Enhances English learning skills topping all factors with 380 responses with AUB (N = 195) & LU (N = 185), followed by Easy access to more up-to-date information with 175 responses with AUB (N = 106) & LU (N = 69), then Active learning with 59 responses with AUB (N = 50) & LU (N = 9).

In AUB the top suggested advantages came for: access to more information and knowledge (N = 58), makes lessons easier (N = 41), and know more vocabulary (N = 26) responses.

In LU the top suggested advantage came for: access to more information and knowledge (N = 46), all English learning skills (N = 45), and interesting lessons (N = 36).





## 4.6.3 Disadvantages of using computer technology in English Language

## Table 76

ID		AUB		LU	
Disadvantages		Ν	%	Ν	%
Distraction (112 responses)	Distraction	34	56%	33	63%
	Distraction from other programs	13	22%	11	21%
	Low concentration	13	22%	8	16%
	Total Responses	60	100%	52	100%
Time (21 responses)	Time consuming	4	44%	6	50%
	Waste of time	5	56%	6	50%
	Total Responses	9	100%	12	100%
Decrease use of books (51 responses)	Decrease use of books	22	100%	29	100%
	Total Responses	22	100%	29	100%
No interaction & communication (41 responses)	No interaction with instructor	9	41%	9	47%
	No interaction among students	4	18%	0	0%
	Weaken communication among both	9	41%	10	53%
	Total Responses	22	100%	19	100%
Health problems (35 responses)	Eye problem	5	38%	15	68%
	Headache	3	23%	1	5%
	Health problems	2	16%	2	9%
	Laziness	3	23%	2	9%
	Addicted	0	0%	1	5%
	Obesity	0	0%	1	5%
	<b>Total Responses</b>	13	100%	22	100%

Disadvantages of using computer technology in English Language

The conclusion from the disadvantages in table 76 of using computer technology in English language is:

Distraction topping all factors with 112 responses with AUB (N = 60) & LU (N = 52), followed by decrease use of books with 51 responses with AUB (N = 22) & LU (N = 29), then No interaction & communication with 41 responses with AUB (N = 22) & LU (N = 19). In AUB the top suggested disadvantages came for: distraction (N = 34),

decrease use of books (N = 22), and distraction from other programs along with low concentration (N = 13) responses each. In LU the top suggested disadvantage came for: distraction (N = 33), decrease use of books (N = 29), and eye problems (N = 15).





## **CHAPTER 5**

## DISCUSSION AND CONCLUSION

The paragraphs below deals with the following:

- Discussing the findings
- Conclusions
- Implications and further studies on literature.

The study aimed to find:

- students' level of expertise and level of using of computer technology
- perceptions of Lebanese communication skills college students in American
  University of Beirut and Lebanese University regarding their training in and use
  of computer technology in language classes
- differences between students' perceptions in the private (AUB) and the public sector (LU) regarding the use of computer technologies in English language classes
- relationship between gender and the level of expertise, level of using and practices regarding the use of computer technologies in English Language classes
- participants' views concerning the advantages, disadvantages, and barriers of using computer technologies in their classes

## 5.1 Students' Level of Expertise and Level of Using of Computer Technology

Results indicated similarities in the level of expertise in both universities, at AUB and LU, where most of the students rated themselves as Good, and the least was

rated as No Experience. The highest rate in the level of expertise of both rated good, followed by intermediate, then beginner, to expert, and the least for No experience. Various studies implicated that students' consumption of technology is reliant on how competent students perceived themselves as efficient users of these technologies (Dulle&Minishi-Majanja, 2011; Hargittai& Shafer, 2006; Koivumäki et al., 2008; Wasserman & Richmond-Abbott, 2005). The abundance of advanced technological tools, where students have access to these tools mainly in their houses and schools makes students more proficient in using technologies (Ono &Zavodny, 2003; Wasserman & Richmond-Abbott, 2015). In fact, the rate at which organizations are adopting innovative technologies is increasing. Furthermore, technology is utilized in order to add innovation and efficiency (Keeton, 2008). Students were asked about how often they used computer technologies in their learning tasks; responses varied in both universities. One hundred thirty one students at American University of Beirut communication skills students used computer technologies frequently whereas only sixty one students at LU use them frequently. However, one hundred four Lebanese University students used it sometimes. The lowest percentage for both universities was rated as never.

Although one hundred twenty one of the students at the Lebanese University rated their level of expertise as good, only one hundred four students use their computer technologies sometimes. In fact, lack of training and availability of technological tools for practice may play a role in computer knowledge as well as its use (Dulle&Minishi-Majanja, 2011; Wasserman & Richmond-Abbott, 2005).

# 5.2 Perceptions of Lebanese Communication Skills College Students in American University of Beirut and Lebanese University Regarding Their Training in and Use of Computer Technology in Language Classes

One hundred ninety six students at AUB and one hundred forty six students at LU, both university students stated that they never participated in any computer training sessions during their last three years; however, thirty four students at AUB and fifty four students said that they participated in more than three sessions. A minimum number of students participated in training sessions while the majority did not. Hence, results showed that schools and universities should provide training sessions to allow their students to rate themselves as experts. In fact, there are many tools for a successful technological implementation, which include knowledgeable users or else they would not be interested in using the tools (Koivumaki et al., 2008; Verhoeven et al., 2010; Wasserman & Richmond-Abbott, 2005), and innovative as well as interactive ways in which the technologies are employed, especially when it comes to learning (Burrus, 2009; Pate, 2016; Stone, 2016).

Students were asked how often they use a number of programs. The results came as the following:

Both universities used Word processing on a weekly basis, daily for Web search, Multimedia, and e-mail. PowerPoint was also used on a monthly basis in English language classes. The majority of both university students stated that they never used Spreadsheet, Web Design, language software, blogs, video conferencing, online field trips, and native conversations online.

AUB students used Presentation on a weekly basis, unlike LU students who used them monthly. AUB, unlike the LU, demanded students to do presentations especially

in their English language classes whereas Lebanese university students were asked to prepare monthly presentations only.

Database is used weekly at AUB, but it is never used in the Lebanese University while Wikis are used daily at AUB, but weekly in LU. Moreover, online assignments were used on a weekly basis in the AUB but never used in the public sector, which reveals a huge gap between professors and students. Therefore, we can conclude that students barely use online assignments and always hand in their assignments which create a huge discrepancy in both universities. Public sectors should encourage students to use more online assignments especially in universities.

Followed by the declaration of the students from both universities that they use e-mails on a daily basis, the number of students at AUB were more than that in LU with 278 students using e-mail for AUB and only 113 students for LU.

For Spreadsheet and web design, students from LU and AUB barely use these programs because they are literature students. Despite the fact that the use of language software, native conversation, online field trips, and video conferencing is very useful in English Language classes, students reported never for all these programs. Those valuable programs boost their speaking, listening, and writing skills. Each of these programs serves a different purpose, and students' use of these programs must dependent on how useful they perceive them to be. This finding suggests that the assignments they get may not call for the use of such software (Dulle&Minishi-Majanja, 2011).

Each of the below applications was more frequently used in certain language skills. The language skills included listening, reading, writing, and speaking. The highest rate was chosen for each of the below applications. In these parts, universities

were nearly close in their answers stating the programs more frequently used in the four language skills (Listening, reading, speaking, and writing).

For the Listening skills: multimedia and videoconferencing Reading skills: Web search, database, blogs, wikis, and online field trips Writing skills: Word Processing, Spreadsheet, Web design, PowerPoint, e-mail, language software, and online assignments

Speaking skills: Presentation and native online conversations

Results were based on students' perceptions in both universities which were the main predictor in this study

# 5.3 Differences Between Students' Perceptions in the Private (AUB) and the Public Sector (LU) regarding the use of Computer Technologies in English language Classes

Students' perceptions in this study were divided into five categories according to the UTAUT theory previously discussed. Performance Expectancy (PE), Effort Expectancy (EE), Facilitating Conditions (FC), Social Influence (SI), and Voluntariness of Use (VOU) are the five categories serving as the direct determinants of usage intention and behavior. The Communication skills students at AUB showed that the Lebanese University students in this study do have the Effort Expectancy. However, due to the lack of the facilitating conditions, they barely use technologies in their classes especially in English language classes. The lack of availability explains why some people do not feel at ease in using technology as others who have ongoing access to it (Dulle&Minishi-Majanja, 2011; Stone, 2016). Voluntariness of use of both university students showed equal results illustrating that both have the same deliberate choice of use. Lebanese university requires change since students are in need of more support to use technologies in their classroom. These students would benefit from the presence of more technology in their learning environment since technology presents them with more options to learn. These options might be more adequate to their learning styles and to nowadays' demands (Lee, Yeung &Ip, 2016; Pate, 2016).

# 5.4 Relationship between Gender and the Level of Expertise, Level of Using, and Practices regarding the Using of Computer Technologies in English Language Classes

Results of this study revealed differences in gender in both universities in the level of expertise and the usage of blogs. The following studies indicated that males consider themselves as experts in the use of technology (Hargittai& Shafer, 2006; Ilie, Slyke, Green & Lou, 2005; Jackson, Ervin &Shmitt, 2001; Lee, &Kirkup, 2007, as cited in Lee, Yeung &Ip, 2016; Wasserman & Richmond-Abbott, 2005) which confirms the familiar pattern of results concerning gender differences and technology. Gender counts when it comes to expertise and the use of blogs because men and women have different preferences and various perceptions of the multiple uses of the web. On the other hand, gender differences at AUB were significant in males using database, language software, and online field trips. However, in LU, gender differences were mostly revealed in females in the use of spreadsheet, web design, e-mail, word, and language software.

The independent sample test showed difference in gender in EE and FC. AUB has shown greater means than LU in the facilitating conditions whereas LU showed higher rates than AUB in EE (Effort Expectancy), SI (Social Influence), and VOU (Voluntariness of Use). This is probably due to the higher availability of technological installations in AUB and the ease of access, especially when compared to the public university counterpart. Males were dominant in VU whereas females were dominant in the rest (PE, EE, FC, and SI). No association was found between gender and level of use, training sessions taken, Word, Web search, multimedia, and presentation. That is due to lack of training in both universities, and because some of the options offered by the technological tools are unavoidably used nowadays (applies to Word and Web search as well as multimedia).

# 5.5 Participants' Views Concerning the Advantages, Disadvantages, and Barriers of Using Computer Technologies in Their Classes

For the qualitative part of the study, three questions were related to barriers, advantages, and disadvantages regarding the use of computer technologies in English Language classes. Students had the chance to answer freely on each. Results showed some discrepancies in both.

When asked about the barriers, four major main categories were chosen according to the numbers revealed. Most of the barriers in both universities were: lack of training, technical problems, lack of encouragement, and financial problems. For the American University of Beirut, the most frequent answer was lack of training for both students and instructors, followed by technical problems, lack of encouragement and the least for financial problems. However, for the Lebanese University, the first barrier was technical problems, followed by financial problems, lack of training, and the least for lack of encouragement. It is concluded that the Lebanese university mainly has two serious problems preventing its students from using computer technologies in their English classes. Those are technical and financial problems, problems that could hinder the learning process especially if through technology (Lee, Yeung &Ip, 2016; Pate, 2016; Stone, 2016). Unlike AUB that faces barriers of lack of training for both instructors and students in the university itself and lacks technical problems where students are asking for a huge IT department because they do use computers a great deal so technical problems always occur.

The advantages of using computer technologies in English language classes were categorized in four categories: enhancing English language skills, enhancing communication skills, easy access to more up-to-date information, and active learning. Students from both universities agreed on two advantages. The first advantage, enhancing English language learning skills that include listening, reading, writing, and speaking, got the highest frequency in both universities. The second agreed upon advantage in the two universities was 'easy access to more up-to-date information'.

The Lebanese university had a higher frequency in communication skills than active learning. All in all they had same agreements on all advantages with a very slight difference in the last two variables. All students agreed that the advantage of using computer technologies is important especially in English language classes. When these advantages are perceived by the students, learning can be well supported by technology (Burrus, 2009; Lee, Yeung & Ip, 2016; Venkatesh, Thong & Xu; 2016).

For the disadvantages, five categories were highly chosen, with a huge difference in the response from the two universities. Those five categories are: distraction with other programs, time, decrease use of books, no interaction and communication in class, and health problems. Students of the Lebanese University's choices reported the highest frequency for distraction, followed by the decrease of using books, health problems, no interaction and communication, and the lowest for time

consuming. Students of AUB gave distraction the highest frequency, followed by no interaction and communication, decrease use of books, health problems, and time consuming which was the lowest in both sectors. Results revealed mostly similar responses but the numbers varied in the hierarchy itself. Both chose time consuming being as the least disadvantageous quality of using technology, but all agreed on the distraction in other programs as the most disadvantageous quality. The IT department surely has few tricks to keep students focused on what they are working on only, but surely has no control on students' distraction at their homes. We can still find some ways to decrease distraction, but as a matter of fact, that the minimum usage of books is decreasing.

Many AUB students complained that no interaction and communication is being held between students and instructors. This is also a point to consider in classes, especially for us as educators. We must give tasks using computer technologies without having this destroy the communication and interaction within our classes. Interaction is a must; computers and other technologies should not be used as simple replacements of more traditional methods (Keeton, 2008; Pate, 2016). It is important to take these findings and related previous ones into consideration by instructors while preparing their method of teaching. Critical thinking should always be encouraged especially when using technology (Pate, 2016).

Adding to the barriers, advantages and disadvantages, scattered answers were also frequently discussed as sub categories showing less frequency than the others. Those will be discussed in this section. Both universities showed the highest percentages of students who are not well trained. Nevertheless, very few students stated that instructors were not well trained. Lack of training will definitely demotivate

students in using technology. Both universities are in need to add students' training sessions to their curriculum, especially in their English language classes. One of the problems in both universities is that students claim that internet is too slow, adding that universities must provide faster internet connection in order to complete their online assignments. Teachers cannot freely assign online assignments or activities if they are threatened by technical failures.

AUB top suggested barriers were that students are not well trained, Internet is too slow, and lack of encouragement. These are all signs of barriers that are hindering motivation, and a lot of recommendations should be taken into account when designing a training method as the training process is sensitive as well (Stone, 2016).

LU's top suggested barriers were need additional computers, students not well trained, lack of encouragement. Lebanese university students mentioned that other suggested barriers included poor electric power feed, and huge financial problems. There is not enough funding provided for their university, which is an issue that hinders fixing their technological problem.

Other suggested advantages mentioned by students in both universities were: watching videos, resources for writing, conversations with natives, auto correcting mistakes, translating words, knowing more vocabulary words, making lessons easier, lessons become more interesting, and using more information for my essay. Enhancing English learning skills topped all advantages, followed by Easy access to more up-todate information, then Active learning. This supports statements concerning the efficiency of technology in language learning (Lee, Yeung &Ip, 2016). In addition, students tend to perceive the technology backed lessons as more interesting and authentic (Kung & Chuo, 2002).

AUB top suggested advantages were: access to more information and knowledge, makes lessons easier, and learning more vocabulary.

LU top suggested advantages: access to more information and knowledge, all English learning skills, and interesting lessons. Some of these advantages are privileges of technology language learning and would be completed by interactions among instructors and students making the integration of technology in language and communication more interesting. One must not forget the abundance of information and the ease of their retrieval, allowed by computers, mobiles and the internet.

The least stated disadvantages were few, but had a higher percentage in the Lebanese University. They revealed the health problems stated like eye problems, headache, laziness, becoming addicted, and obesity. Distraction was the main disadvantage factor, followed by the decrease in use of books, leading to No interaction & communication.

AUB top suggested disadvantages: distraction, decrease use of books, and distraction from other programs. LU top suggested disadvantage: distraction, decrease use of books, and eye problems. According to the results, the disadvantages were very scarce and had a very low percentage, which reveals that technology has very few disadvantages in language classes but has many advantages especially in the use of language software. Computer technologies should be used in language classes. Instructors, as well as universities, should encourage the use of computer technology. Students are eager to know more, participate, and request more training sessions.

These results show positive voluntariness and intentions of use on behalf of the students, which should be supported by the instructors and administrations because they

have the potential to generate productivity from the students (Venkatesh, Thong & Xu, 2012).

### **5.6 Future Directions and Study Limitations**

One of the implications for future research is expanding the sample by mentioning other universities in various districts. This extended sample will give the study more accuracy and credibility. Moreover, the educational system is not made up of students only; hence, future studies should include instructors' perceptions as well as principals' and deans' perceptions, human resources' perceptions', university employees' perceptions, and the library employees' perceptions to cover the whole educational university system. The sample was only related to the English language students in both universities, but could also include other majors such as business schools, engineering schools, and many other majors which will increase the scope of students' perceptions in each of their major. Different classes such as engineering or business classes might include a larger scope of technology integration which utilizes more specific software programs that students will also use in their future careers.

Adding interviews with students to the research design will provide additional information in both the public and private sectors. If additional questions were asked in interviews regarding the students' perceptions and problems, students would speak up, have more freedom to talk, and discuss more interesting topics. Furthermore, engaging in conversations is more interactive than simply writing comments down which leads to a more communicative environment. Observations of interactions between instructors and students in classes will assist to reduce the problems and barriers.

Some participants tend to provide socially desirable answers instead of the actual answers while completing the survey.

## CHAPTER 6

## CONCLUSION AND RECOMMENDATIONS

The existing study explored students' perceptions and practices regarding the use of computer technologies in English language classrooms. The study design included the qualitative as well as quantitative part, where both analyses supported one another in creating a reasonable discussion, while understanding students' perceptions and practices. Students in the Lebanese University showed more effort expectancy but lacked the facilitating conditions in their own university. The LU instructors do not encourage their students to use more technologies. In addition, the majority students at LU use the e-mail or presentations daily in their own English language classrooms, but results showed that students at AUB use both much more. Instructors should ask their students to submit online assignments and e-mail them to encourage them to use more technology in English language classrooms. The highest rate for AUB students was the use of e-mail and then Web search. All students do use their laptops at home, but instructors should take the initiative to e-mail their students their assignments more in order to receive their homework via e-mail. This would lead to more communicative environment.

Lebanese University has poor financial coverings, but during my visits to some classes, I noticed that computers were provided as well as few interactive whiteboards in the Lebanese University communication skills classes. Unlike the American University of Beirut that provides full financial coverings.

Both universities' students considered themselves as good but not experts in using the computer technologies. Most students requested training sessions. The lack in training availability in both universities was clearly noted, and the need for more computers and technological tools was clearly shown in the Lebanese University. Instructors in the Lebanese University need more training and have to create a more communicative environment.

This study shed light on the AUB and LU's students' perception as well as practices used in the English language classes.

Based on the findings, the following recommendations were developed:

- The Lebanese university administration should provide training for students and encourage instructors to use more computer technologies and provide optional trainings.
- Lebanese university must encourage professors to use e-mails and presentations in their English language classes through assignments.
- Lebanese University must provide more computers and power feed when it comes to implementing technologies in order to meet the needed technological skills of the twenty first century.
- Educators in both universities should ask for more assignments that require using technologies.
- Other practices should be implemented in both universities especially the use of web design, language software, blogs, video conferencing, online field trips, and online conversations with native.
- Universities in both universities need to offer more training sessions to raise the level of expertise.
- The IT department in both universities should always be ready to provide all the support required.

- Educators should create a more interactive and communicative environment between instructors and their students.

Comparisons among one of the private universities (AUB) and the public sector (LU) showed similarities and differences in perceptions regarding the use of technology in English language classrooms. Further studies including several Lebanese higher education institutions in different sectors will provide more understanding concerning students' perceptions regarding the use of technology in classrooms. All students should be equal in education even if they are unable to join private universities.

"Technology is a useful servant but a dangerous master" by Christian Lous Lange.

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# APPENDIX A

#### Survey Items Students Survey Items

	Female		Male			
Gender						
	No Experience	Beginner	Inte	rmediate	Good	Expert
How do You rate your expertise in using computer technologies?						
	Never	Rarely	Son	netimes	Frequently	Always
Do you use computer technologies for your learning tasks?						

	No	One	Two	Three	> Three
		Session	sessions	sessions	sessions
Have you participated in					
computer training sessions					
during the last three years?					

# APPENDIX B

		Strongly	Agree	Disagree	Strongly
		Agree			Disagree
	Learning Performar	nce Expectar	ncy (LPE)		
	Using computer technology will				
LPE-1	help and assist me in the learning				
	process				
	Using computer technology will				
LPE-2	promote collaboration between				
	my professors				
	Using computer technology will				
LPE-3	help me to develop research and				
	presentation skills				
	Using computer technology will				
LPE-4	make topic areas more interesting				
	for me to learn				
	Using computer technology will				
	help me find additional learning				
LPE-5	resources compared with the				
	traditional learning resources				
	compared with the traditional				
	books and dictionaries	/			
Effort Expectancy (EE)					
EE-1	Learning how to use computer				
	technology is easy for me.				
	My interaction with computer				
EE-2	technology is clear and				
	understandable.				
EE-3	I find computertechnology easy to				
	use				
EE-4	It is easy for me to become skillful				
	at using computer technology.				
	Interacting with computer				
EE-5	technology does not require a lot				
	of mental effort				

Facilitating Conditions (FC)					
FC-1	I have the resources necessary to use computer technology.				
FC-2	I have the knowledge necessary to use computer technology				
FC-3	Computer technology is compatible with other technologies I use.				
FC-4	I can get help from others when I have difficulties using computertechnology				
	Social Infl	uence (SI)			
SI-1	People who are important to me think that I should use computer technology				
SI-2	People who influence my behavior think that I should use Computer technology.				
SI-3	People whose opinions that I value prefer that I use computertechnology				
Voluntariness of Use (VOU)					
VOU-1	Although it might be helpful, using computer technology is not mandatory in my learning tasks				
VOU-2	The University doesn't expect me to use computer technology in EFL				
VOU-3	My use of computer technology is voluntary				

#### APPENDIX C

## College Student's most frequently used Computer technologies in EFL

Classes

#### 1. How often do you use the following programs?

Applications	Daily	Weekly	Monthly	Never
Word Processing				
Web search				
Multimedia				
Presentation				
Database				
Spreadsheet				
Web Design				
Powerpoint Presentation				
e-mail				
Language Software				
Blogs				
Wikis				
Online assignments				
Video Conferencing				
Online Field trips				
Native Conversations online				

Applications	Listening	Reading	Writing	Speaking
Word Processing				
Web search				
Multimedia				
Presentation				
Database				
Spreadsheet				
Web Design				
Powerpoint Presentation				
e-mail				
Language Software				
Blogs				
Wikis				
Online assignments				
Video Conferencing				
Online Field trips				
Native online conversations				

#### 2. In which language skills are the following applications most frequently used?

#### APPENDIX D

# Students

Do you find any barriers to implement computer technology in your class?

What are the advantages of using computer technology in English language classes?

5. What are the disadvantages of using computer technology in English language classes?