Factors Influencing on Students' Attitudes and Performance While They Using Educational Technologies. Case Study: Eastern Mediterranean University

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ABSTRACT

This study examined the factors influencing on students' attitudes and performance while they using educational technologies. The selected case study was faculties' students at Eastern Mediterranean University, North Cyprus. To address research questions, quantitative method was employed to obtain data using questionnaire in order to conduct survey. The data collected by using survey had 200 participants.

The survey data was analyzed quantitatively to obtain the results frequencies, Anova and T-test. The results in this study showed the students had positive attitudes and performance toward educational technologies on other hand the present study revealed that there is no statistically significant differences according to gender, age, study level, owning computer and monthly expenditure whilst there is statistically significant differences in the attitudes and performance of students' attribute to the Cumulative Grade Point Average (CGPA), faculty, nationality, daily computer use for study and daily internet use for study.

Keywords: Educational technologies, performance, attitudes.

ÖZ

Bu çalışma, öğrencilerin Eğitim Teknolojilerinden nasıl etkilendiğini incelemektedir. Araştırmada Kuzey Kıbrıstaki Doğu Akdeniz Üniversitesindeki öğrenciler kullanılmışlardır. Araştırmada "Quantitative Metod" kullanılıp, anket neticeleri değerlendirilmiştir. Bu araştırmaya 200 öğrenci katılmıştır.

Elde edilen verileri değerlendirmek için, Anova ve T-test kullanılmıştır. Alınan veriler gösteriyor ki, öğrencilerin "Eğitim Teknolojileri"ne bakış açıları olumlu olup, elde edilen statistiki bilgiler, cinsiyet, yaş, eğitim düzeyi, aylık harcama ve bilgisayar sahibi olma konusunda bariz farklılıkların olduğunu göstermektedir. Ayrıce öğrencilerin CGPA, fakülte, uyruk, çalışmak için günlük bilgisayar ve internet kullanımı, farklılıklar göstermiştir.

Anahtar Kelimeler: EğitimTeknolojileri, performans, davranış.

DEDICATION

All praise to Allah, today we fold the days' tiredness and the errand summing up between the cover of this humble work. To the utmost knowledge lighthouse, to our greatest and most honored prophet Mohammed - May peace and grace from Allah be upon him. To the spring that never stops giving, to my mother who weaves my happiness with strings from her merciful heart. To whom he strives to bless comfort and welfare and never stints what he owns to push me in the success way who taught me to promote life stairs wisely and patiently, to my dearest father. To whose love flows in my veins, and my heart always remembers them, to my brothers and sisters. To those who taught us letters of gold and words of jewel of the utmost and sweetest sentences in the whole knowledge. Who reworded to us their knowledge simply and from their thoughts made a lighthouse guides us through the knowledge and success path, To our honored teachers and professors.

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INTRODUCTION

1.1 Background

The technological advancement and information evolution in the world was the main cause of changing in different fields. keeping pace with the development of information technology became important in order to face the problems which appeared by the increasing of students and decline of academic staff furthermore, the changes are encouraging using a new approaches as well modern strategies of learning and instruction especially after the evolution of information technology, which contributes on the increasing of demands towards exchanging experiences between people. Technology can provide learners with greater access to a vast array of information and resources, empowering them to become a free deputy learners and to be able to create meaningful learning experiences outside the traditional classroom.

The appearance of information and communication technology in the education sector has been contributed upon enhancing students and instructors simultaneously. In the same time, the integration of information communication technology and electronic learning tools in the classroom which takes place in instructional institutes, hence, the expert educators mentioned that using technological tools encourages learners to develop thinking ways while, the methods have been changed to deliver the concepts easily and effectively. On the other hand, by means of technology

learning process and evaluation has been changed and new methods were appeared e.g. exams based computers, group -project, oral presentation and so on. Technology race makes learning teaching process more interesting compared to conventional process.

Ten years ago, a majority of higher educational institutions shifted from traditional learning to a contemporary learning, it was a teacher-centered method but nowadays it is a learner-centered. The teachers' role no longer giving information directly to students and giving quizzes. On the contrary, the students' roles became more effective, practical and exploratory. In light to educational technologies, instructor facilitates the instructional process. According to Wernet (2000) educational technologies are becoming a section of higher professional education. For this reason, the modern technologies take place in well-developed countries around the world e.g ; USA, Germany, England, Canada, Australia, Malaysia and Singapore. It has been proved that technologies are playing role in improving the performance of students in learning as well educational technologies which contributes in the development of learning outcomes furthermore, it is reduce the problems in education.

Nowadays, the main goals of the educational institution are individual industry as well skilled students. Most universities have its own ways to obtain those goals by integration of modern technologies in learning environment in order to develop learners to be well-prepared. The novel technologies in learning –teaching processes are much; such as an Online Environment, Course-Based Web, learning management systems, the virtual lab, electronic materials and so on. Those technologies enhance students to achieve, to create, to be responsible. According to Saxena (2014)

Technology and educations are a great combination when it is use with the right reason and vision. By technology, the teacher can share information and resources with students online in short time. Accordingly, availability of electronic material assists both of teachers and learners to collect information related to the course.

Shah and Murtaza (2012) pointed that Educational Technology deals with the problems faced the teacher in imparting the content as well the students' problems while acquiring knowledge. Integration of technology in education empowers teachers and learners to achieve the goals without dilemmas. The use of educational technology increases day by day in a high educational institution, the demand on using technologies in classroom became core need for all of members of learning process. It's worth mentioning that educational technologies contribute in growing students' comprehension. Furthermore, it is facilitate learning process. The prospects of information and communication technologies integration in learning environment has expanded and the ambitions of using it in classroom are increasing effectively and gradually. The accelerated developments drives the higher educational institution to adopt this innovation in order to reinforce students' attitudes regarding educational technologies. Moreover, to examine their attitudes also to keep pace with modern educational, which assists and facilitate learning process in order to reduce the problems and also overcome the obstacles.

1.2 Research Questions

The study aims to answer the bellow questions in order to reach the objectives:

1.What are the attitudes and performance of students towards educational technologies?

1.1 Are there statistically significant differences in the attitudes and performance of students attribute to their gender (male, female)?

1.2 Are there statistically significant differences in the attitudes and performance of students attribute to their age?

1.3 Are there statistically significant differences in the attitudes and performance of students attribute to their level of study (bachelor degree, master degree, PhD degree)?

1.4 Are there statistically significant differences in the attitudes and performance of students attribute to their CGPA?

1.5 Are there statistically significant differences in the attitudes and performance of students attribute to their owning computer?

1.6 Are there statistically significant differences in the attitudes and performance of students attribute to their faculty?

1.7 Are there statistically significant differences in the attitudes and performance of students attribute to their nationality?

1.8 Are there statistically significant differences in the attitudes and performance of students attribute to their monthly expenditure?

1.9 Are there statistically significant differences in the attitudes and performance of students attribute to their daily computer use for study?

1.10 Are there statistically significant differences in the attitudes and performance of students attribute to their daily internet access for study ?

1.3 The Purposes of the Study

This study intend to investigate students' attitudes and performance regarding to educational technologies also to determine which of the following variables ; gender, age, CGPA, faculty, nationality, monthly expenditure ,study level, daily internet access for study, daily computer use for study and Owning computer influencing on students' attitudes and performance while using technologies in learning environment.

1.4 Assumptions

- There are no statistically significant differences in the attitudes and performance of students' attribute to nationality variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to gender variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to age variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to owning computer variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to daily computer use for study variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to daily internet use for study variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to monthly expenditure variable.
- There are no statistically significant differences in the attitudes and performance of students' attribute to Cumulative Grade Point Average variable.

- There are no statistically significant differences in the attitudes and performance of students' attribute to study level variable.

1.5 Significance of the Study

The significance of this study will help to explore students' attitudes and performance when they are using educational technologies in learning environment, it can give a clear picture of the integration of technologies in learning process. The research provides information about the factors which impacts on the attitudes and performance of university students toward educational technologies usage inside campus and outside campus.

1.6 Limitation of Study

The following are the limitation of the present study:

I) The total population of Eastern Mediterranean University is 17995, the number of participants in this study were 200 students, in term of the gender 134 male students and 66 female students.

II) The students in this study are randomly selected to participate furthermore the study included the whole faculties in university.

1.7 Definition of Terms

- Educational technology : the study and ethical practice of facilitating learning and improving performance by creating, using, and managing appropriate technological processes and resources " (AECT , 2004, p.3).
- Digital native is a person who was born during integrated technology (Prensky; 2001).
- Digital immigrants: individuals who were born earlier than emerged technology (Prensky;2001).

- E-learning : a way to form teaching and learning process through the use of Internet and information technology devices.
- M-Learning: using mobile devices in learning process in order to facilitate learning also improve learning environment and outcomes (Ally, 2009).
- U-learning: a method provides learning resources anytime and anywhere.
- D-learning: one type of learning provides learning process without need to attend physically to classroom.
- Attitudes is inclinations and feelings, prejudices or bias, preconceived notions, ideas, fears and convictions about any specific topic (Paul et al,2007) .
- Information and Communication Technology ICT: a collection of technological tools and resources utilized to communicate, manage and store information.

Chapter 2

LITRATURE REVIEW

2.1 Theoretical Framework

The developing nations and individuals need distinct approaches which requires unremitting efforts from the governments, including the institutions that deliver learning. The globalization contributes in life changes, it was generated a new style of life for all of the people, the opportunities to communicate available anywhere any time this attributed to the technology furthermore, the opportunities to learn regardless of the kind of subject matter; history, languages, mathematic or sciences, ranching to resources nowadays became easy more than before. The education industry going on keeping pace with modern technologies to increase the productivity of individuals, in order to improve the learning outcomes.

In line with the development in information and communication technologies tools the educational institutions are exerting efforts to use those tools also in charge of preparing students for utilizing it during their study in order to achieve a long life learning opportunities. The emergence of educational technologies in education encouraged in creating a suitable way for learners based on their characteristics, situations, level of knowledge and skills. These emerging technologies could be used to create an interactive learning spaces across varied contexts (Henschke, 2010 &Looi, 2010). Educational Technologies are associating with education industry,

Fox (2005) stated Educational Technologies being inherent into schools, ongoing, persistent, and essential (p.42).

The history of educational technology includes three eras : The first ears is mass instruction, this stage focused on teaching processes of huge numbers of learners and less numbers of skilled teachers, the cost effectiveness is the main goal of this stage. The second era is individual learning: In this era the learner should involve in the process of leaning by using the materials to achieve the objectives, self-learning as concept was appeared furthermore, a lot of materials were used to support learning such as computer programs, printed materials, slides. The third stage of educational technology is group learning: this stage is the modern one used group strategy for instance brainstorming, group dynamic, simulation (Shah & Murtaza,2012).

2.1.1 The Millennial Generation

The generation of millennial people they born in computer era called Millennial Generation “Net generation -Digital Dative “this era between 1980 and 2001. The goal of this name to associate people with technology to show that the relation between human end technology enduring and increasingly, we couldn’t live isolated without technology, the grown of technology development enhance the people to embracing it, the internet acceding provided better option for these people. Nowadays, the internet available for majority of the students, it has been around them as well as they can access to the internet by different devices inside the campus the Wi-fie take place in the other hand new generation of smart phone provide features to the customers to share the internet. Prensky (2001a) pointed that Millennial Generation have distinct culture attributes to availability of technology.

The technology influence on the way of thinking for the individual, with media and other tools of technology the people became different than previous people. Prensky (2001a) was compared between the two generations; Net generation and the previous generation that he called “digital immigrant” by using a series of comparisons: Twitch speed versus conventional speed: Net Generations prefer giving the responses quickly and directly. Parallel processing versus serial processing; Net Generation they have ability to work on multitask, even they use computer they listening music and a lot of program operated at the same time furthermore they have interaction with information. Random access versus linear thinking :Net Generation they have different way actually new way of using internet and goggling it is non-liner way they use to find knowledge, data and pictures through World Wide Web. Graphics first versus text first: Net Generation desire graphical literacy to textual literacy; they prefer audience material than text material. Connected versus stand alone: The new generating of students have a high degree of connection ; they like to be connected to other by using technology such as email, social media, forums and other way of communication, the students more social in this generation. Active versus passive: the modern generation of students more active in their leaning, they prefer to learn by experimentation to find and solve the problem they prefer self-leaning . Millennials are visual and active learners they prefer to experience the world through multimedia not print. (Cao, et al, 2009; Matulich, et al, 2008&Twenge, 2005). Play versus work: this type of students was making combination between working and playing, they have ability to get fun during the work. Payoff versus patience: students in Net Generation have desire for access to information until they looking for fast feedback. Fantasy versus reality: nowadays’ generation anticipate the technology to be private more personality and they don’t have any problem with accepting fantasy and play

along with real work also they are more awareness on what is useful, what provides sense for shaping their own knowledge .

Technology as Friend versus Technology as Foe: when we taking about modern generation " Net Generating ", "Millennial Generation" should know that all of the members deal with technology as their ally not as difficulties or problems that they need to overcome and solve, there is a unique and friendly relation between them and technology. Junco & Mastrodicasa (2007) cited by Ahmed (2012) they pointed out that 79% of higher education students owned computer, 94% possess cellphone, and 56% have an MP3 player in other, 76% of students used SMS to communicate to each other also 92% of students reported multitasking while instant messaging, this study indicated that new generation of students able to learn by technology more than last generation, they have capability to use. It is became as an essential part of their daily life action as well as net generation includes professors, they believe in technology and interesting in using it,(Latchem, 2009 & Conrad, 2008) stated that net generation interesting on online environment for lessons, assignments and homework testing they prefer everything online because of that education institution need to integrate electronic methods in their courses.

The educators should take into consideration this type of students they have characteristics completely differ than other generation, they prefer different way of learning and they have positive attitude toward technology furthermore they need new style including web-based leaning, electronic leaning, using mobile to obtain information, majority of those have trends toward tablet based learning, virtual learning ,online learning and computer assisted instruction because they grew along with technology era revolution.

2.1.2 Technology in Education

The widespread of technologies have been encouraging the educators to devote efforts about it ;how to integrate these technologies with learning furthermore, the challenges that will face the teachers and students, what the benefit from using it in classroom and outside schools. Many researchers and scholars were spending time to find the results. Over the last ten years majority of the research concentrate on the technology in education. In this study, the term educational technology refer to all of electronic devices and materials that use to aid learning teaching process to provide productivity, interactivity and effectiveness for students in their learning. The majority of counties nowadays looking for developing learning environment in order to foster students to deal with subject matters furthermore keeping pace with the advancements, a lot of those counties were moved from conventional tools such as black board to smart board, and from classroom to smart class that provide an evidences for who said using technologies are wasting students' and teachers' time, indeed technology has become a common place in the classroom and it has provided meaningful learning. Students have stress acceptance of the possibilities that given by technology to allow them engage with learning activities in varied time and place (Glogowska et al, 2011& Lancaster et al , 2011). In line with development and improvement, the educators spend time and exert efforts on the modern technologies to improve the new model of education and establish a form of technological applications to reinforce the educational attitudes to gain affective learning which enhances creativity and keep moral values and also the positive trends, keeping pace with the modern technologies, (Al-Omari, 2008&Ascough, 2002). The change in learning-teaching methods and approaches directed to appearance of a new philosophy in education which was called as e-learning and distance learning in

terms of dealing with information system, internet, computer and electronic devices (Volery, 2000).

In light of the advancement and availability of internet in high quality most of educational institution was involving materials based on the internet in order to support leaning, the internet evolution occurred widely changes in the curriculum in higher instruction after this revolution was appeared e-learning, m-leaning, web-based leaning, virtual-leaning, online learning and blended leaning, a new shapes of learning differ upon on the purpose of every one. Similarly, at the beginning of the twenty first century a new term in the instructional field called mobile learning; cell phone learning is defined as type of leaning using smart phone or modern generation of electronic devices to facilitate leaning process such as tablet, generation 5, generation 4, Personal Digital Assistants “PDAs" and other types of mobiles (Mcconatha & Praul, 2008). Using mobile in leaning from view point of some researchers considered as a new type of distance learning which started to develop since the eighties of the twentieth century from learning by correspondence to the use of the latest media technology in education .

2.1.3 The Computer in Education An overview

The computer provides a lot of services for leaning-teaching process let alone of challenges that have had faced using it in classroom, the number of learns increases yearly, the demand on enrolling colleges and universities became a challenging for this institutions while the variety of information around us should consider whereas, the high speed of exchange those information between the people guided the higher education institution to create new methods of learning along with the technology revolution, cause of a many of features in instructional computer it have been basic need of educational environment whilst it will facilitate leaning and provide for

student opportunity to have knowledge and skills (Abu Saud, 2009). Using computer and technology improve student achievement in their study, Batchhelder (2000) stated the main advantage of computer assisted interactive in education were providing and facilitating individualized learning. Edwards (1993) was indicated that computer assisted interactive provide privacy for learners also the computer accept the low- level of students' ability, learners can improve their skills without showing their level to their colleagues. Clyton (2007) was argued that the computer provide special methods to develop higher thinking skills for students in early age thus reducing the challenges and difficulties in learning somehow the tutorials programs have advantages for learner from the view point of educators.

Using computer in education foster learners and teachers in the same time to proceed and doing the tasks easily, quickly and effectively, a lot of complex process in education without computer the human brain have difficulties to understand it which became more clarify than before, with computer a small things now visual for students thus, processing data faster than previous also designing active leaning also making a high motivation are happening by using computer. Learning system is developing in parallel with availability of a new generation of computer and the great contributions of computer in education system uncounted. Using of computer in learning-teaching have stimulated the appearance of a list of terms and terminologies related to use of computer in instruction for instant, Computer Assisted Learning, Computer Based Learning, Computer Assisted Instruction, Computer aided learning, Computer Manage Instruction and Intelligent Computer Managed. On other hand, there are a new terminologies for using computer in education appeared after the widespread and revolution of the internet such as web-based learning, web-based training and web-based instruction.

Computer-Assisted Instruction (CAI) improves instruction for learners with incapacities because students obtain direct feedback and don't continue to practice. Seo& Bryant (2009) defined CAI as using of computer devices in order to provide the content for learning process. The computer attracts learners' attention during the process, this type is commonly use in education. According to Ramani & Patadia (2012), CAI help teacher to provide experience and allow making explaining and illustration for students to present a clear concept thus using CAI increase students motivation also supports individualized-learning furthermore, gives an interactive and meaningful learning by providing immediate feedback for Lerner, they claimed CAI have distinct characteristic which provide self-evaluation. In other hand, CAI increases students' motivation then stimuli them to achieve based on their abilities. Aydın (2005) was indicated in his article CAI include many programs such as ; drill and practice, the simulation program, tutorial programs, educational game, problem solving and practice work oriented instruction .

As claimed by a 2002 Pew Internet and American Life Project, around 20% of students in college was started using computer from five years to eight years of age, 85% possess computer also 79% reported that internet has had a positive influence on their academic experience. CAI became as alternative conventional instruction allow students to lean from verity resource, CAI provides self-leaning opportunities, self –evaluation, individualized. According to Wambach & Brothen (2000) they stated the learner can repeat the same topic many time for mastering the concept and increase the degree of confident. Previous studies shown that using CAI programs improve students leaning and help learner to understand the complex concepts (Lai et al., 2011; Mo et al., 2013; Lai et al., 2012& Lai et al., 2013). Hani (2014) pointed out that Computer assisted language learning provides more fun for learners,

immediate feedback furthermore providing higher incentive for the learner and interaction in addition the core benefit “easy control “. using computer programs to assist learning process does not matter which subject students going on study provides a lot of benefit for students outcomes, CAI programs became essential need for learners inside campus or outside according to Dale’s cone the learner remember 10% of what he/she read, 20% of what he/she hear,30% of what he/she see, 50% of what he/she see and hear, 70% of what he/she say and act and 90% of what he/she do and perform , that mean majority of educators believe that the learns will learn by using technology better than traditional way, they computer assisted instructions program providing flexibility for the participants in classroom . The high spread and availability of internet over the past years result to appear modern style of learning and instruction, by computer and internet access the facilitate for teacher to provide high quality of instruction in contract learners can reach information in short time and high speed and also they can improve their skills in different time and place. The learning environment by internet transformed toward openness, time and place barriers broken, through the internet learner can find his/her need to achieve.

Web-based learning: according to Cook (2007)Web-based learning include all educational involvements that make use of the internet or a local intranet. This type of learning overcome the barriers and extend the horizon, students will not Committed in specific time of place study, and all of students can achieve the objectives. WBI is a “hypermedia-based instructional program which utilizes the attributes and resources of the World Wide Web to create a meaningful learning environment where learning is fostered and supported”. Online learning: Liu (2005) argued that in Online learning teacher and students are separated from other they connected and exchange the knowledge, information via computer and internet. No

vital meeting between the two parts of learning process the channel between then the internets, students can interact with courses online. In addition, over 1100 foundations of higher education in the United States provides online courses (Newman & Scurry, 2001).The Army uses online instruction as a retention tool, with over 40,000 soldiers in 50 countries following advanced degrees online reported by Symonds (2003). Trierweller & Rivera (2005) indicated that the majority of learning executives expected the increasing use of online platforms to provide higher education to their employees.

Blended leaning : Driscoll (2002) pointed that B- learning is an environment used multi-methods and techniques simultaneously on constant, Young (2002) defined blended learning combining between Online Leaning and Traditional Leaning also, Reed (2001) defined blended teaching "as an instruction program that uses more than one presentation method to improve the cost of program presentation and educational output". Distance learning ; according to SWAP(2003) the terminologies d-learning, d-education and d-instruction are often use interchangeably, according to World Wide Learn(2003), d-learning is a kind of leaning available for the people who have not able to attend class on campus depend on their circumstances because of the job, family, socio-economic circumstance, geographical factor, policy factors etc. Some of researcher use open learning, irregular learning instead of distance learning. D-learning give opportunities for the people who are going to study without coming to lesson, submitting their assignments to the instructors online and they are free from the boundaries of face-to-face learning. The following figure shows the relation among such terminologies.

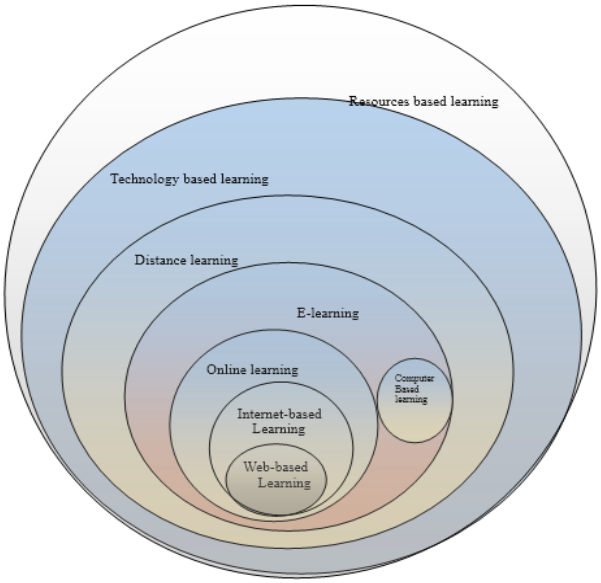


Figure 1: The Relation Among Terminologies

2.1.3.1 E- Learning

One of the famous learning styles that was emerged along with internet evolution, this type of learning based on electronic devices as well it is contributing in developing of learning system until now, electronic learning still the main option for improving and preparing a new generation of learners and teachers in parallel line. It is playing distinct roles and provides golden opportunities for huge number of pupils furthermore shapes a new form of learning environment furthermore, has been characterized by flexibility, adaptability and availability of varied resources.

The widespread of internet and computer devices have been encouraged the appearance of e- learning in education industry whilst the increase of the demands on leaning and enrollment in education institutions, the necessity of keeping pace with modern technologies have been guided the educators for embracing e-learning . Behera (2013) argued that e- learning is a gaining the distributed knowledge and information by using electronic materials, such materials will facilitate ranching to

the information also make it understandable for the human. Electronic learning may include using of Web-based Learning Materials, CD-ROM, Forums, Webpages, Blogs, Wikis, Simulation Programs, as well includes E-mail Service, Social Networking ; YouTube, Facebook, Twitter, and also Podcasting, Games, Tutorial Programs, Blackboard, Model, Hypermedia, Graphic Software . E-learning is modern way to provide and enhance learning process through the computer and communication technology, it is based on both of computer and communication technology. The terminology electronic learning refer to computer-stimuli instruction also refer to distance learning but it can be used for regular learning. There are various definition for electronic learning based on the purposes of use it in learning process, in general e-learning combines with using electronic materials in learning environment.

By tracking the history of emerging the terminology e-learning indicates that the correlation of this term was promoted along with internet evolution. Bichsel (2013) defined the term e-learning as learning includes a web- based component allowing cooperation and access to the content that extends outdoor of the classroom, he stated that online learning use to express on the course that majority of its components online and also distance learning refer to the type of learning that the teaches and learners will not be physically in classroom; different time and different place. Pollara (2011) pointed that e-learning can be done inside the campus or outside the campus, but usually done when time and range be devoted to learning. According to Garg & Jindal (2009) e-learning can be defined as a way to form teaching and learning process through the use of Internet and information technology devices. E-learning is the use of ICT in order to facilitate the access to online learning-teaching

resources and tools or any kind of learning is enable electronically. Noticeably that e-learning harnessing process by using the power of computer and internet for instructional purpose, it's a method includes three components; Teacher, Students and Contents provided by tools or devices. The interaction between the three components of e-learning (Lerner, Teacher, Content) via information and communication technologies included six form of interactions : Teacher-Learner, Teacher-Content, Teacher-Teacher, Learner-Learners, Learner- Content, Teacher-Content and Content-Content (Suparyanto & Pardamean, 2014). The binary interaction in the following figure.

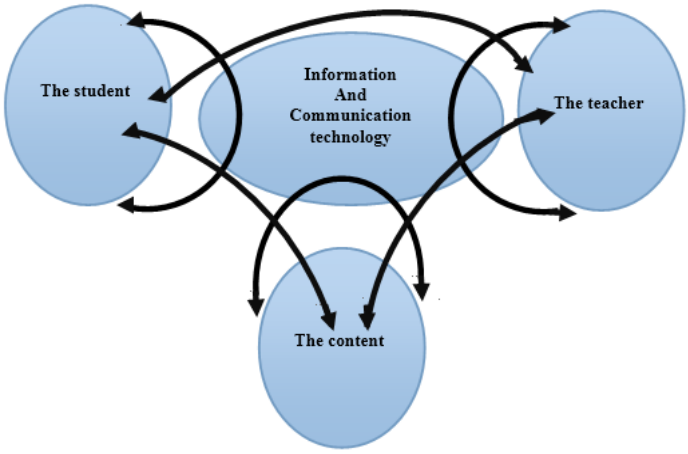


Figure 2: The Interaction Among Student, Teacher and Content through Technology

In light to the advancement in the field of information and communication technology e-learning became a principal need for higher instructional institutions, those foundations have plenty benefits moreover, e-learning has advantages as well disadvantages, based on the previous studies summed up by Holmes & Gardner (2006) cited by (Arkorfu & Abaidoo, 2014 & Behera,2013) bellow :

E- learning is flexible when the time and place take into consideration, everyone has

opportunity to select the appropriate time and place for learning, this characteristic enables the educational institution to deliver learning when students have a probability to receive the learning process, flexibility on the time and place lead to a new advantage "individualized instruction ". E-learning enhances the efficacy of knowledge and provides easy access to instructional tools furthermore facilitate the way to reach the information in anytime anywhere. The ability to provide channel between the learners to communicate and make discussion and provides tools that allow students to from discussion, e-learning have characteristics that allow the learners to show their views to increase the productivity. E-learning focus in cost effective, provides an opportunities for the higher educational institutions to learn a huge number of students without needing a lot of buildings. Supporting self-learning approach; enhance each learners to study in his/her own way or style regardless of learning speed.

On other hand, some of students have disabilities of physical problems (deaf and dumb) disadvantageous conditions, e-learning enable those students to study and improve their skills. This approach of learning provide high quality of learning for huge number of students. E-learning provides solutions for the problems such as teacher problems that faced in learning process and provides solution for student's problems while, this type of learning using different assessment methods to test the outcomes moreover, giving feedback to learners as well it is provides many features to increase students' motivation through learning process. Behera (2013) argued that e-learning have disadvantages : Firstly, requires knowledge and skills: this type of learning need a high level of skill from students and instructors to deal with the tools and devices, need special knowledge to use multimedia and web pages furthermore preparing learning contents need professional person that he should know

programming languages, instructional design for e-learning contents , knowledge for creating electronic materials suitable for the characteristics of learners. Secondly, lack of equipment : using e-learning and adapting this method in higher educational institutions or schools need equipment's, labs and different devices and also those thing need huge funding.

Thirdly, e-learning more expensive than traditional learning, e-learning tools and devices require a huge budget. Fourthly, feeling of isolation and missing social contact, it is effects on sociality of students, through e-learning they are feeling isolated, they have no opportunity to communicate face to face, also they are in virtual world as well the attendance physically to classroom not available for them to make real friendship with students or instructors. Using e-learning may reduce the social relation between learners. Fifthly, in the field of instruction co-curricular activities very important but unfortunately such activities in e-leaning neglected. Finally, when the technical problem happens e-learning service will stop, this thing indicates that e-learning needs time furthermore, it is very stressful because majority of activities based on machines not human like traditional instruction.

2.1.3.2 M- learning

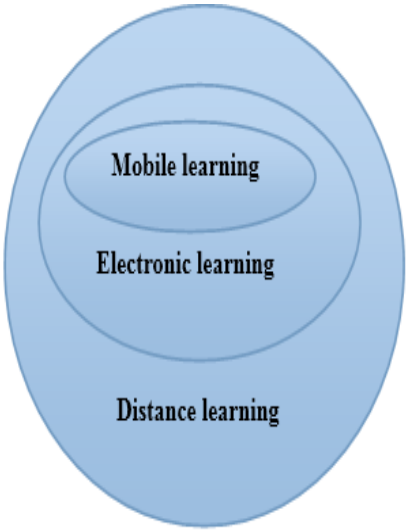
Availability of mobile , ease of use , novelty of the generations of cellphone , the decrease of its price , all of such characteristics have been contributed in possession of mobile devices. The widespread of these devices in the hands of students enhance using it for instructional purposes, according to (International Telecommunication Union,2014) seven billion mobile subscriptions globally, it is mean nearly all of the people owning mobile thereby 44% of the families around the world have internet access at home and 31% of the families in undeveloped countries have internet in their home, all of those statistics numbers indicates that the mobile and internet

became important necessity for daily life. In line with the wide advancement, the learning have received an opportunity to involve the mobile in education specially learning process.

The number of digital students are rising year by year, the higher educational institutes need to consider this type of students prefer micro-learning and using their own cell phone during learning while traditional students they were comfort with papers, pen, chalkboard or whiteboard but the digital generations they have own-way of learning, they have convenient methods and materials to deal with information, they are preferring digital life. According to Ally (2009) cited by Pollara (2011) stated that mobile learning as process of using mobile to support leaning, obtaining instructional materials, for communication among students, instructors and institution. Mobile learning is a means to facilitate and encourage learning – teaching process anywhere any time, M- Learning some time considered as an extension of e-learning (Behera, 2013).

Mobile leaning one of the most important part in using educational technologies through formal and informal learning, many of studies conducted during the last ten years coincide with the advancement of cell phones, those studies carried out in order to explore the benefit of using mobile in learning process moreover to measure the attitudes of students towards using mobile otherwise examining the influence of this modern technology on students' achievement and engagement. (Cavus & Uzunboylu, 2009) claimed that using mobile phone assists students to improve and develop critical thinking skills. Guenter et al (2008) explored that using PDAs enhance students to corporate in high level while using PDAs beneficial for learners' multisensory experiences. Rogers, et al (2010) claimed that mobile devices increase

students' motivation and generate enjoyment in addition enhance collaboration through learning process. Shih, et al (2010) pointed out that using hyper-book and hyper-pen reinforce learners to utilize supplemental materials also majority of learners not passive with using those devices to support their learning process. Majority of studies indicates that using mobile in learning –teaching processes makes a new learning environment for students also increase the collaboration between the parts of instruction. Mobile learning is sub-method from e-learning regardless to the differences available, closely related to each other while the is a relationship and correlation between the two methods , the figures 3-a, 3-b presents the correlation (Behera, 2013).



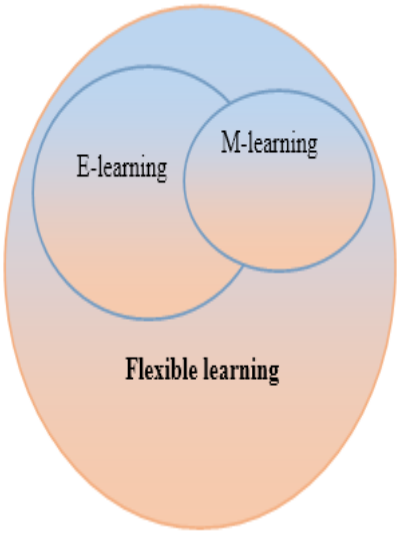


Figure 3-a: The Relation Amongst D-learning, E-learning and M-learning
Figure 3-b: The Relation Amongst F-learning, E-learning and M-learning

According to Nemr & Jean (2014) stated mobile learning in classroom includes six components, the following figure clarify those components.

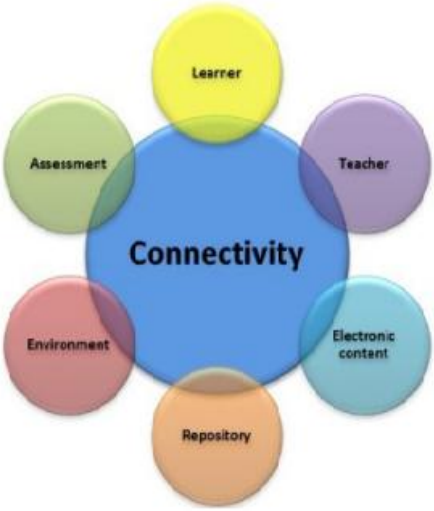


Figure 4: The components of mobile learning

1.Student : the core component of mobile learning process is learner, m- learning aimed to provide the content to student furthermore facilitate learner interaction and corporate with those machine in effective direction and for instructional purposes 2.Teacher: in the conventional way the teacher controlling learning process and present the content which they need, in m- learning the functionality more than traditional way, m- learning should support teacher to do his/her functions in a high quality moreover, the instructor must be able to use that devices for pedagogical aims by sending message, giving tasks and feedback, tracking students during the assignment . 3.Electronic content: m- learning considers that the content convenience with the kind of devices as well the way of display and the simplicity take into account. 4.Repository :the features and the characteristics of mobile learning allows instructors to store the contents (electronic materials) which can be used another time to support learning process also make its available for the student when they need it.5.Environment: in m-learning the environment have distinct values, using the technological features that provided by mobile add effectiveness and quantitative learning more than traditional way. 6.Assessment : the evaluation in education is the

most important part of learning process, it is an essential need to measure the achievement of student toward the specific objectives and the main goals, m-learning provide a new way to assess students specially when classroom include huge number of learners whilst the traditional way of evaluation is difficult in that moment furthermore the self-assessment available in m-learning environment and also using mobile encourage students to work in group this thing will facilitate evaluation.7.Connectivity: the component connectivity in m- learning environment is the essential component for sharing information, assist to provide interactive, effective and corporative environment.

Mobile learning provides benefits for education industry, as well makes learning more effectively, collaborative and more interestingly for all of learning process members. Accordingly, there are a lot of advantages and disadvantages of using mobile learning. According to Hajim (2012) cited by Alonso de Castro (2014):Using handled computer and cell phone make accessing to the knowledge and information more easy, added to that can be used for educational purposes and supportive tools to support both of learners and instructors through learning. Students can be used this machines to improve their academic achievement and performance in classroom. On other hand they can use it in off-campus to support learning process and making communication related to their study. Some students feels shy to communicate face to face during the lesson, with mobile learning the interaction becomes easier, also the motivation with other colleagues and teacher increase gradually. Using cell phone supports a new approach to deal with the type of students who needs special attention. Each student has own way of understanding information; Digital learners differ in learning styles, may each learner in classroom need different way and strategy to learn, by using mobile everyone can learn in witch way he/ she prefer

according to their needs. The wider access to mobile devices provides opportunities for students to access educational online tools, obtaining instructional materials, using educational tools through the class. M- learning facilitates learning regardless of the educational difficulties or physical disabilities, allowing for all of students types to learn and acquire the minimum skills . .

Using mobile devices in education environment encounter advocacy from the majority of students and scholars but unfortunately still have disadvantages, some of those related to economical issue, self-efficacy of users or Technical problems: Firstly, the cost of the new generation of cell phone still high, not all of students can buy those types moreover the cost of downloading files because the huge data need space, this thing costs the user. Secondly, the size of those devices once obstacles that faced the users, the small screen affecting on users' eyes its cause problem along with excessive use through the time furthermore the small screen provides and display a portion of data. The small of bottoms or keyboard making stumbling block to use it. Thirdly, the life cycle of the battery is limited and also majority of those devices allows using it for a few time, the flaws of smartphones are needing recharging during the usage time. Fourthly, the technological flaws of smartphones makes barriers to the use of it in some time furthermore, the operation systems varied depend on the companies that produced those devices, some programs not adapt with all of smartphone devices and tablet computers, the flexibility in some devices almost non-existent.

2.1.3.3 U-learning

Wandering in your hand neither of iPods, tablet computer, smartphone in the campus, enable you to utilize the wireless services to support your study, the environment around you linked with internet. The classroom is connecting with the

world, few seconds you can searching to collect data, you can use electronic dictionary to find the meaning of strange words through your lesson, able to send messages to your class mates, with the technological advancement your life will be small .Downloading the materials and lecture notes available. Learning with technology still developing year by year, the extension of information and communication technologies tools in the field of education assists to generate new paradigm of learning one of the famous paradigm called "Ubiquitous learning", this method of learning makes learning anywhere any time and anything, according to Jung(2014) the u-learning is method provides the resources of learning process connectively anytime, anywhere depend on students' situation using technological devices. U-learning extension of the previous methods of learning, transformed from conventional learning to e-learning after that m-learning then followed by u-learning. Hwang et al (2008) pointed out that any environment provide an opportunity for student to access the content of leaning in anyplace and anytime consider a u-learning environment regardless of its employ wireless communication or mobile devices or not .

Kang & Kim (2015) claimed that the terminology (Ubiquitous Learning) comes from the term (Ubiquitous computing) used to portray the shifting of general computing off desktops to many devices in order to make commuting available in all side of daily life, the internet access in tablet computer gives opportunity for the designer and the developer to utilize u- learning environment. Yahya et al (2010) &Jaiswal (2012) pointed out that the u-learning have different characteristics such as Permanency: the information and knowledge relatively except if the learner remove it intentionally. Accessibility: The information available to the learner when they need it. Immediacy: the information can back quickly by the learner. Interactivity:

the interaction between learners themselves and with teacher through the varied media in effective way. Context-awareness: change the environment to adapt with the situation of students to provide the information for them. According to Hwang et al (2008) clarified the relation amongst M-learning, E-learning and U-learning in learning and context-aware U-learning, they stated that context aware u-learning includes employs mobile devices, wireless connection and sensor technology as it is appear in the following figure.

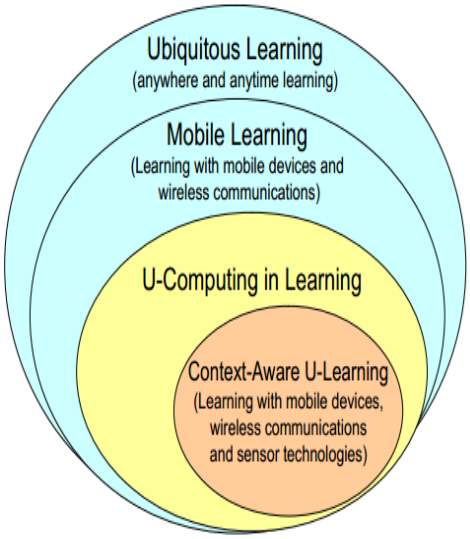


Figure 5: The Relationships Amongst U-learning, M-learning, U-computing in learning and "Context-Aware U-learning.

According to Kang & Kim (2015) stated u-learning application have different features such as provides contents for adult learners, support languages and provides an interactive learning model for students on other word, u-learning environment provides module application for different students from different culture, also allows for them to access anytime, anyplace. This model of application can be access from different platform or devices as well supports self-study and group work.

Wu et al (2013) classified the advantages of U-learning to four categories: The advantage of space and time: the conventional learning environment have limited time and place, the lecture time determined in a duration while the location of the lecture centralize in specific place but in u-learning the time and place not limited, the learning action can occur by using devices such as computer, smartphone and PDAs in different time and place and also those devices provide long-life learning. Resource advantage: U-learning added to the traditional resources a new and modern resources based on network, provides electronic material that support pedagogical aims, all of the environment elements encourage and enhance students' knowledge acquiring such as digital television network, mobile network furthermore the essential equipment's like smartphone, PDA, Mp3, Mp4..etc..Humanization service advantage: usually in u-learning, the learning contents and all of the activities records this does not mean that the humanity of the learners not into consideration in contrary, it is provide personalized learning support service for the students Advantage of learning and evaluation: regardless of the novelty of the method, the assessment of learning has been able to encompass the outdoor of the classroom. This system provide evaluation depend on the place of students, their activities and the environment. U-learning provide immediately evaluation and feedback.

2.2 Review of Literature

This section proposes to present a literature review related to the attitudes and performance towards educational technologies. Attitude is a concept that has importance and benefits for different sciences. This concept is essential in varied disciplines, for instance, education, economic, marketing and so on. According to the National, Educational Technology Standards for Students, (NET-S) claims that

“students develop positive attitudes toward technology that support long-life learning, collaboration, personal pursuits and productivity” (ITEA, 1996).

The attitudes toward a concept included two components; the emotional dimensions which encompass feeling and cognitive aspects, and the other one are beliefs. For example, let's present a simple and general object, the blood. The majority of students have certain beliefs about the blood; A learner in science class can say that blood is red, but the essential point is the beliefs of cognition? If there are different color descriptions of blood in class, it means beliefs. However, blood is usually red, so it is a cognition. It may be another student to say that blood in the frig is puce or under the sun black. All these specific beliefs are about the color of blood, but when we put the blood under a microscope, we can see the real color of blood, whilst students change their beliefs after the result of the experiment. The message that we are going to convey from this example ;the computer and technologies effect on our beliefs. Formulating the present study, needs more concentration on the previous studies which examined students' attitudes towards technology and computer in learning process regardless of learning situation whether, was formal or informal.

2.2.1 Research Studies Related to the Relationship Among Attitude ,Gender, Department , Owning computer, Internet Usage, Socio-Economic Status, Age, Level of study and CGPA.

Several factors have been found that effect on attitudes toward educational technologies. The main factors that are believed to influence attitude towards educational technologies are whether one owns a computer, internet access and gender. The factor receiving the most consideration and attention from investigators and scholars is gender. Academics have been examining the dilemma of whether or

not gender has an impact upon attitudes towards technologies use in learning for over two decades now, and they still have not been able to reach a unanimity regarding the case. In this part we are going to provides the previous studies that resorted to examine the correlation among the attitudes toward using the technologies in instruction and different variables.

Al Mahmud (2011) conducted a study entitled “Students’ Attitudes towards the Internet: A study on special Universities of Bangladesh", the researcher aimed to explore the attitude of special university students in Bangladesh towards the Internet. The sample was selected randomly and included 1022 participants from postgraduate and graduate academic stage to measure students’ impression and attitudes toward the Internet based on gender, mother and fathers' education level, owning a computer and having Internet connection. The population included 65.9% males, and 34.1% were females, accordingly mothers' education level was secondary, 7.7% were postgraduate whereas, the fathers’ level of education, 6.5%, 12%, 31.8%, 27.7% and 21.4% respectively. Approximately 92% of students have computers at home. On the other hand, nearly 81% have internet access and three-quarters of students were graduate students. The study revealed that almost 50% of students have positive attitudes toward the internet. However, there was no significant difference between the male and female students. In addition, no differences were noticed among postgraduate students and graduate ones regarding attitudes.

Park (2011) he conducted a study entitled “Gender differences in the effectiveness of Google Forms in class," this study aimed to compare technology Google Forms that essential for computer lab besides examining the gender differences in the relationship between the use of GFs and performance changes. The target group in

this study included 81 students in business statistic course. 37% of the population were females, and 63% were males. The study revealed the students using GF and their performance was better than before; that means Google Forms influenced positively on students' achievement and performance. Furthermore, the researcher found no impact regarding to gender but the most important thing that Google Forms assisted the male students more than female. The author claimed there are many different viewpoints of educators indicates the male desire to use technology in the classroom more than the female students. Another reason is the nature of the course which effects on the result itself because the males prefer statistics and perform better than their counterpart.

Alzaidiyeen et al (2011) in "The information aged: examination of university students' attitudes towards personal digital assistants (PDAs) usage in terms of gender, age and school variables", they conducted this study to measure students' attitudes with regard to use of PDAs for learning purposes. This study was conducted at University of Sains in Malaysia. It was included 250 undergraduate and graduate students from different faculties. The study aimed to investigate the different attitudes of students according to their gender, age and school. The study sample was distributed based on gender, including 114 males and 136 females, according to the age category: 41.2% of students their ages were between 30-39 years old, 36% of students' ages were from 20 to 29, and the 12.8% of the participants' age were 40 to 49 years old while more fifty years old were 10%. The target group was selected from the computer and education equally, each group have 41 participants. Furthermore, the management school students were 50 ; the lowest percentages of the sample from pharmacy faculty were 9.2%. The study explored the males have positive attitudes toward using PDAs higher than their females counterparts. On the

other hand, the study indicated that the males demonstrated satisfaction in using PDAs, besides, they feel interested and enjoyed more than females. In addition the females have lowest value of usefulness for using this technology as well the finding showed the variables age and department didn't effect on students' attitudes toward using PDAs.

Suri et al (2014) in "A Study of Panjabi University Students on the relationship between their Age and Attitude Towards E-learning ", this study was carried out in Panjabi University also surveyed five faculties. The study aimed to analyze the age influence on Scale of computer and e-learning attitude of students. The population of study was 400 students. According to students' gender, the males were 32.4% and the females were 67.6%. In other words, the majority of students were classified in the category as 20-26 years old were 63.2%. Nearly 89% of the participants have uploaded/downloaded materials for the courses from the web. Almost three-quarters of the students watched educational interactive videos through the internet as a result of that, nearly a quarter of the target group tried podcasting. The study revealed that the students have high positive attitudes toward computer. Moreover, the study indicated that age doesn't have significant influence on the attitudes toward computer and e-learning.

Jamil (2011) in his study "Factors Affecting Pre-service TESOL Teachers' Attitudes towards Using CD-ROM Dictionary" investigated whether some factors (gender and year of study) impact pre-service TESOL teachers' attitudes regarding the use of CD-ROM dictionaries. The population of the study was 111 students; 80 students completed the questionnaire and 10% of the selected students were males, and the rest were females The study sample was distributed by age categories. The majority

of participants' ages were between 20-22 years old. The target group included Malay, Chinese, Indians and 2.8% of the study sample were from other ethnic groups, 96.2 % of the students' mother language not English. The study revealed that there is no important different attitudes according to the gender variable .The students' gender don't impact on attitudes toward using CD-ROM dictionary while the study years have a high degree effect on students' attitude towards using these materials. The writer concluded that gender was not important in determining pre-service TESOL teachers' attitudes with regarding to using CD-ROM dictionaries.

Mahmoud (2009) in his research entitled "Gender, subject and degree differences in university students' access, use and attitudes toward information and communication technology (ICT)" investigated the impact of factors such as gender, level of study and department on the attitudes of students with regarding to ICT at University of the Punjab. The target group of the study was 625students distributed over three departments; art and humanities 12%, social sciences 57%and science &technology 31%. 343 of the students in this study were females and the others were males, 73% of the sample were graduate students. The study explored that the majority of students have computer access at home and on campus as well according to the gender. The significant difference between both males and females regarding computer access in campus; the males have campus access more than females. In light to the computer access at campus according to the department, students from science & technology and social science department approximately 75% but arts & humanities departments 48%. It was clear that the access from campus differs according to the department, inspect with female students with a home-access computer more than male students but the males' more active users. The study revealed that the level of study impact on computer access. The graduate students

outweighed undergraduate students in access computer at home. The responders in this study used ICT for academic purposes and entertainment.

The highest percentage of internet usage was for academic materials after that using e-mail and playing game, 60% of using ICT services for chatting and programming. Accordingly, both of males and feminine students using ICT services. Sometimes the usage differs from the Internet to e-mail services were clearly in favor on social sciences and science & technology. On the other hand, undergraduate students using spreadsheets and programming more than graduate ones. There are different attitudes on ICT attributed to the gender, department and level of study. In this finding, the female students have positive attitudes toward information and communication technology, but the male students use it more The researcher recommended providing ICT facilitates for the females' students, undergraduate students and the department of art and humanities.

Tabar et al (2014) in his study "Factors affecting students' attitude towards technology" examined students attitudes with regarding to the technology and the relation among the attitudes and students 'gender, age, owning computer at home and using campus computer. It was conducted at Alameh Tabatabaei University in Tehran, it surveyed 350 students, 62.5% were male students and 37.5% were female students. The study was shown that the students have used computer for various purposes and 75% of them use computer for purchase, playing game and communicate with other daily or sometime a day, weekly also 35% using computer for gathering information, for presentation 55%, rarely they use it for programing furthermore the percentage of monthly using for programing 100%, listing music 87.5% any way the students were indicated that they use computer for different goals

including entertainment and educational purpose. The study showed that the attitudes of students toward technology desirable also, students have positive attitudes toward using technology. In light to the finding presented no significant relationship among student's attitudes toward technology and using campus computer, owning computer at home, the age of student.

Hussain et al(2013) conducted a study "The students' attitudes in colleges of education at the Jordanian universities towards the mobile phone use in university education" in order to identify students' attitudes as well to examine if there are significant differences in students' attitudes according to gender, level of study and university. In this study the sample was 363 participants from education colleges distributed on 115 students from Hashemite, 122 from Yarmouk and 126 from University of Jordan. The sample included 78.2% female students also 21.8% male. The study revealed that the students in education colleges have positive attitudes toward using mobile phone, in other words, there are no significant differences in the student's attitudes regarding to use mobile phone in college education between the male and female students. Bachelor students are less positive than postgraduate students. In addition, the students of the Hashemite University demonstrated high positive than others.

Taghavi (2006) conducted a study addressed (The Effects of Age, Access to a Computer, and College Status on Computer Attitudes). The target group included 174 students. 58 were male and 116 female students from Mississippi State University. The study concentrated on the type of attitudes: anxiety, confidence, liking, and usefulness regarding to computer. The attention was given in this study to the factors: age, computer home access, level of study. The study revealed that there

are no significant statistical differences on computer attitudes according to the age variable as well, the access to computer at home influenced students' attitudes toward computer. In addition, showed that the first-year had more positive attitudes toward computer more than the senior and junior ones.

Alkan & Erdem (2010) they were conducted a study entitled (The attitudes of student teachers towards educational technologies, according to their status of receiving teaching application lessons) the study measured students' attitudes; the target group was 244 students from various faculties. All the participants received training in the departments of Biology, Physics, Chemistry and Mathematics Teaching in the Faculty of Education, Hacettepe University. In this study, there are two status of receiving training: preliminary grade(didn't receive training) and fifth grade(received training). The study revealed that the students' teachers had positive attitudes with regarding to educational technologies. Similarly, the study showed that 5th grade students were more positively interacted than preliminary grade; the students who had received training showed their strongly positive attitudes and there was important difference in the attitudes attributed to status of receiving a training application lessons. Accordingly, there were no significant differences in the attitude between the male students and female students, the differences between the departments were not significant.

Sarfoet al (2011) they conducted a study entitled (Technology and gender equity: Rural and urban students' attitudes towards information and communication technology) examine the attitudes of 159 boys students and 160 girls students regarding to ICT. The population was distributed to 184 from urban and 140 from rural. This study covered senior high school in Ghana. The study revealed that there

is no difference between the boys and girls from the two geographical regions (urban and rural) in the attitudes towards ICT for accelerated development that was indicated a similarity between the male and female attitudes. Furthermore the students from urban have positive attitudes more than rural student as well as there is similarity in the attitudes between males and females in the two areas regarding to using ICT. In this study there is no significant statistical difference in the attitudes toward ICT attributed to students' gender, but the attitudes of urban students toward ICT defer than rural students. According to this study, it's clear that the geographical area impact of the attitudes of students toward using information and communication technology.

Yang (2012) conducted a study entitled (exploring college students' attitudes and self-efficacy of mobile learning) to measure the attitudes and self-efficacy of students in language class. The sample of study consisted fifty eight sophomore participants in engineering department; this group included (10 boy and 48 girls) at a technical university in central Taiwan; all participants were trained two week to use mobile devices before the experiment. The study revealed that the majority of the students were interested in using mobile in learning as well. They indicated that using mobile in class for educational purposes is more enjoying than the e-leaning which increased their motivation. Furthermore, the participants have high self-efficacy regarding to mobile learning. Accordingly, they indicated that they can use mobile in class environment effectively for educational purposes. The study showed that the gender didn't effect on the students' attitudes and self-efficacy toward using mobile devices to read the assigned texts, post questions, read and provide feedback to peers in the class.

Duran (2013) conducted a research entitled (Investigation on views and attitudes of students in Faculty of Education about reading and writing on screen). The study surveyed 254 participants at Uşak University especially education department. The target group included 110 male students and 144 female students. The study explored that 74.9 % of the study population owning computer and also 94 % of the sample can use computer. On the other hand, 77.9% of the students stated that they use computer for different purposes such as homework searching, preparing homework and reports. 73.3%, using social networking sites 69.6%, the majority of the students use computer for educational purposes. The study revealed that reading and writing have advantages and disadvantages and difficulties. Furthermore, the male students have positive attitudes toward reading and writing by using computer more than the female students that explored the attitudes toward reading and writing affected by the gender variable. In contrast, the differences in students' attitudes and opinions that attributed to the subject matter were very slightly.

Rhema & Miliszewska (2014) analyzed the attitudes of Engineering Students towards E-learning in Libya. The study analyzed the relation between the attitudes towards electronic learning and students satisfaction with technology, and their demographic characteristics, access to technology, use of technology for learning and technology skills. The study covered two universities; University of Tripoli and University of Al-Jabal Al-Gharbi ; it surveyed 348 undergraduate students from two departments in both institutions : Electrical Engineering and Petroleum Engineering. The study revealed that the majority of students have positive attitudes towards information communication technology ICT and e-learning. They feel relaxed with using computers, they are confident with it. In other words, they were interested in integration of ICT in their study and they have strong beliefs that e-learning and ICT

will help them and encourages them to continue in learning as well. In contract, in this finding, the female and male students demonstrated a positive attitudes. However, urban students had higher positive attitudes than rural students. Accordingly, the relation between students' attitudes and skill level in technology was substantially positive while between the attitudes and other dependent variables moderate positive relation. In addition, no significant differences due to gender and between urban and rural were found or noticed.

Ahuja & Agarwal (2013) conducted a study entitled (Attitude of Student-Teachers towards the Use of ICT and its Impact on their Academic Achievement), the study aimed to measure the attitude of the students (pre-service teacher) with regarding to use ICT. The population of this study included 100 students- teachers were distributed in two group according to the department: 50 students from the department of science and 50 students from the department of Arts. The study revealed that there is no significant influence between students CGPA and the attitudes with regarding to use ICT and also there is no grate impact between the Arts students and science ones.

Saadatiet al (2014) examined the student's opinions and attitudes towards using technology in their mathematics classroom. The population within the study was 118 engineering students; they were studying calculus 1 at two universities in Iran one is private, and the other one is governmental; the two classes in this study were chosen from twelve classes, of course calculus 1; the others used a questionnaire to measure students' attitudes and interview conducted via Facebook's page. The survey included 10 items called "Measures of Computer Usefulness" whilst the interview focusing on students' ICT skills in mathematics and their opinions about integrating ICT in

mathematics class. This study revealed that the students had positive attitudes towards using ICT in mathematics learning, 81.35% of students considered learning computers saving a time; furthermore, 57% of responders indicated that they need these skills for future work. In addition, the students stated that using the computer is more significant than pen and paper. On the other hand, they need computer and software to facilitate visualization in mathematical notions specially the subjects that are difficult to be understood by a traditional way; paper, White board and chalk board. The authors concluded that the majority of students who need ICT in their lessons to understand 3D concepts, and the learners don't have any problems with integrating technology in mathematics courses also they have no negative attitudes toward using information communication technology in learning processes.

Omotundeet al (2014) conducted a study entitled (Attitude and Usage of Blog as a Determinant to Pre-Service Teachers' Academic Achievement) to measure the attitudes of participants regarding to the use of the blog; furthermore, to examine if there are differences regarding the use of blog in learning according to the gender and also to find the relation between the attitudes of them and using the blog in instruction. The study surveyed 200 of pre-service teachers at the school of language in Adeyemi College of Education Ondo in Nigeria. "DET 402: Radio Television and Film Utilization" is the name for the blog page that was developed by the instructor to promote students during studying. Furthermore, resignation the assignment and post commented to make online discussion. The research tools were tested to measure students' achievement in the course DET 402, also a questionnaire is prepared to examine students' attitudes toward utilization blog BUQ. The study revealed that no significant differences between male and female pre-service teachers found in the usage of blog and no relation between the responders' attitudes and the

usage of blog in their course; this means that the students have no negative attitudes towards using information communication technology in learning environment. On the other hand, the learners have confidence with using this technology as well integrating it in learning teaching process. While this thing indicates the participants' appreciation to the benefits of technology. The study mentioned the strong relation between the use of academic blog and students' achievement and its positive influence on students learning progressing.

Lukow (2005) conducted a study “Students Attitudes toward the use of Technology in the Classroom “ the writer examined students’ attitudes with regard to the use of technology in the classroom. The population of this study was 244 participants included postgraduate and graduate student. 32% of students in this study were males and the others were females, those students were distributed in three age categories; majority of them spent at least one hour for web searching. Approximately, 70% of them didn’t use programming language and rarely create a web bag, and their skills advanced. The majority of them have positive attitudes with regard to email, PowerPoint, the Internet, web courses. In the contrary, they have negative attitudes to the online tools such as forms of discussion and online-quizzes. In this study, the participants demonstrate pessimistic attitudes towards technologies that recorded like DVD and CD.

Lin (2008) carried out study entitled” Student Views of Hybrid Learning: A One-Year Exploratory Study", the study aimed to know the view point of pre-service teachers with regard to hybrid learning (blended learning) that integrates blackboard learning management system, as well their opinions about the usage of blackboard tools. Finally to decide the challenges that met them in mixed learning environment

courses. The researchers used two courses A and B, the target group in course A was 27 and in course B 24 were students. The population included 10% males, 97% white, likewise, the participants' age were from 21 to 33 and so the grade-point average of students categorized from two and half to four. The finding was 91% of learners had high assurance that they were skillful with Search Engines, email, Microsoft office and FrontPage. Approximately sixty percent of the students use university labs' computers for completing the tasks, and most of them had internet access in high speed. In light of this thing, the students felt contented with modern technology. The study presented that students preferred Grade Book; course document and discussion board respectively more than other tools. 14% of students dislike online tests. The challenges from the viewpoint of students: fairly low speed of the Internet will provide bad quality of access for online courses, technology skills, Lack awareness's value of technology and learning tools.

The quintessence issue is the above-mentioned literature has included many factors that have the ability to influence upon the attitudes with regard to educational technologies. Gender is the most factors that the majority of the previous studies researched along with age, faculty, level of study, owning computers. In some studies, gender is followed by computer access, socioeconomic situation of students' parents, geographical position (rural, urban). The other ones, explored the general attitudes toward technologies. Most of them indicated the gender impacts on the attitudes toward technologies and positive attitudes have been found; male students have more positive attitudes than female ones, but the rest study revealed that there are no differences between males and females. The age, department, CGPA and level of study have no impact upon the attitudes of students. The literature indicates that the factors owning a computer and internet access are very important also those

factors impacts on the attitudes of learners. One study claimed that the socio-economic of the students' parents play an important role and influence in shaping their attitudes toward technologies.

Chapter 3

METHODOLGY

The idea of the present study concentrated on surveying the attitudes and performance of the target group with regard to educational technologies specially while using educational technologies in their academic study. This chapter aims to answer the following question:

1. What are the attitudes and performance of University students while using educational technologies ?

2. Are there statistically significant differences in the attitudes and performance of students attribute to: Nationality, Faculty, Owning Computer, Study Level, CGPA, Daily Computer Use for Study, Daily Internet Use for Study, Age, The gender and Monthly Expenditure.

The study sample and the varied methods that were applied to collect and analysis data in this research described by the researcher in this section.

3.1 Research Methodology

Quantitative research approach was used in this study in order to collect and analyze large data needed to complete it. This methodology helps researcher to obtain information and results. The main reason for employing survey methodology that it could facilitate collecting data from sample of population in short time. Gathering quantitative data from students requests designing a survey. Due to the appropriation of this method in collecting quantitative data a survey administered to the target group. On other hand, testing hypotheses and detect the strength patterns need using

quantified data. According to Ary et al (2002) quantitative research consists of literature review, instrument development, data collection, data analysis and conclusion phases. Figure 6 presents all of stages that quantitative approach included.

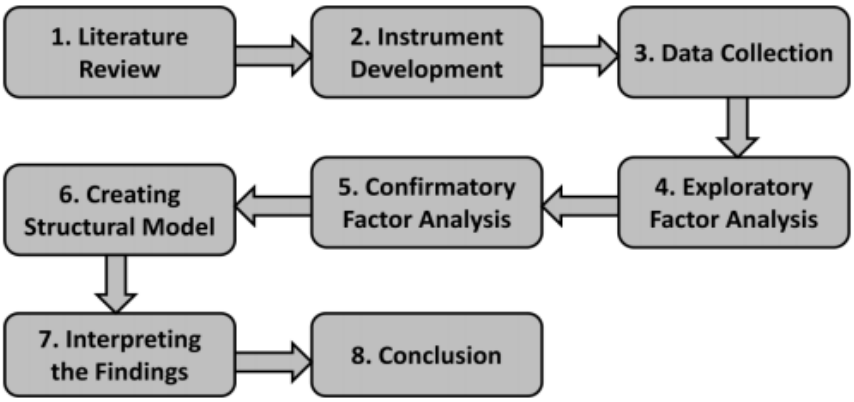


Figure 6: The quantitative approach stages .

3.2 Reliability and Validity

The total number of Eastern Mediterranean University students in Spring Semester 2015 is 17995 students, the male students shape approximately 63 % of the population and the female about 37%. To achieve the validity and reliability, the size of study sample is more important in this case ;furthermore, generalizing the result correlated with sample size (N).Through $N \geq 50 + 8 \times M$ the researcher calculates the sample size ; M is the number of independent variables. According to the present study, the independent variables number is 10. The size of the sample $N \geq 130$ that means 130 students is adequate number for this study. This size is fully favorable for statistical analysis applied in this study.

3.3 Sample

According to Ajay & Micah (2014) pointed out that there are different types of sampling such as; Purposive Sampling, Random Sampling and quota sampling. They stated that each way of sampling differs than other to select sample and calculate sample size. Also, using this technique is based on specific research problem. The present study used random sample to collect data from the University students because this approach provides high accuracy of estimation of parameters in this study. Random sampling provides equal probability of inclusion and each unit in sample, each student has a non-zero chance of being selected into the sample. According to Ross (1978), random sample provides all of elements (students) in population, an equal chance of selection. In contrast, he named it "Epsem sampling". The vastly use of random sampling techniques in educational research due to self-weighting samples that provided by Epsem sampling. The random sample in this study surveyed majority of departments in Eastern Mediterranean University in order to gain high accuracy in generalization of the results.

3.4 Instrumentation

The survey which was used in the present study designed to measure and examine University students' attitudes and performance while they use educational technologies in order to determine the factors influence on their attitudes and performance through their academic study with regardless whether the usage of educational technologies indoor or outdoor of class. The instrument of the study was a questionnaire of the attitudes and performance of students. This questionnaire was designed by the researcher himself through reading the previous literature. It is consists of two main parts; student profile and also attitudes and performance scale. The responder profile part included two sections :first section is demographic factors

; Nationality, Department, Gender and Age, where the age divided into three classes ;less than 20 years old, between 20 and 25 years old and the final class is more than 25 years old. Second section, included questions concentrated on owning computer, monthly expenditure , the average of daily use of computer for instructional purpose, the average of daily access of internet for study, the level of study and the CGPA. The alternatives of study level included : bachelor degree (first year, second year, third year, fourth year), Master degree and doctoral degree. The CGPA divided into four classes from zero to one, one to two, two to three and from three to four.

The third part of questionnaire included 26 items related to the attitudes and performance toward use of educational technologies. The abbreviation ETs in the questionnaire related to Educational technologies. The student answers each statement of the questionnaire according to a Likert-type scale by selecting one of the answers: As a positive : 5 strongly agree , 4 agree , 3 undecided , 2 disagree and 1 strongly disagree on other hand, as negative answer 1 strongly agree , 2 agree ,3 undecided , 4 disagree and 5 strongly disagree .

Item 1, examined if the use of ETs in classroom enjoy the students or not. Item 2, detected the impact of using ETs on learning process. Item 3, aimed to know if using ETs through the lesson increase students motivation and encourage them. Item 4, asked students opinion about the current usage of ETs in classroom to know if ETs usage are fully enough for needed or not. Item 5 aimed to know if the students don't like the lesson utilize ETs. Item 6, measured students belief toward the benefit of learning how to use ETs. Item 7, purposed to know if the students prefer to write his/her written duties such as reports, assignments by using computer. Item 8, reviled the correlation between wasting time and using of ETs in learning process. Item 9,

asked students' attention through the lesson that included ETs. Item 10, checked the degree of learning through the lesson utilize ETs. Item 11, examined if the use of ETs generate boredom for students or not. Item 12, measured the significance of using ETs in education. Item 13, decided whether the student gain benefit from using ETs during his/her lesson. Item 14, explored the relation between ability to learn and using ETs. Item 15, investigated the impact of using ETs on students skills related to the course. Item 16, detected the influence and the role of ETs in reducing course difficulties. Item17 explored if using ETs assist student to follow his/ her course carefully.Item18, examined the impact of using ETs on students' academic performance.

Item19 measured if academic confidence affected by using ETs. Item20, the survey aimed to know the impact of using ETs on students' performance in classroom. Item 21, the question aimed to know the impact of using ETs on the speed of doing homework. Item22 in the survey aimed to know the view point of students whether the ETs facilitate applying acquired knowledge. Item23, the item objective was to know the role of ETs in solving problems related to student course.Item24, the item purposed to know the purpose of using e-mail by student. Item 25, this item in the survey aimed to know in which way the student use internet. Item26 , this item intend to know the importance of ETs in student learning field. All of these items examined in part two of the questionnaire. This questionnaire was translated into Turkish language to enable students who study by Turkish language to understand the content of the questionnaire and also to have probability and opportunity to be as participants in this research in order to keep the Comprehensiveness .

3.5 Data collection

Regarding to the size of sample N ≥ 130, the questionnaires were distributed to 220 responders in Eastern Mediterranean University to answer the items of the questionnaire and retrieval it instantly after finishing responding process . The questionnaires that were distributed composed of 140 questionnaires in English language, 80 questionnaires were in Turkish language. The researcher gave students enough time to read the questionnaire carefully without any intervention that will impact on the students' answer. It is worth mentioning that all of the items in the questionnaire were formulated in simple way in order to enable participants to understand it without any complicity or mixing. Furthermore, to avoid causing boredom for them when they are giving their responses. The total number of questionnaires were collected 200.

3.6 Methods of Analysis

Analysis process started by giving codes for each independence variables and dependent variable in the surveys. The second stage is inserting data into Statistical package for Social sciences (SPSS) to conduct the final analysis process to reveal the results, in this study the researcher used descriptive statistics ; frequencies and percentages to show the results related to the independent variables on other hand T-test and ANOVA test were used in analysis process to examine the hypotheses in this study.

Chapter 4

FINDINGS

4.1 Frequency

Table 1: Nationality Frequency

No	Nationality	Frequency	Percent
1	Turkish	63	31.5
2	Nigerian	27	13.5
3	Jordanian	19	9.5
4	Palestinian	14	7.0
5	Syrian	16	8.0
6	Iranian	10	5.0
7	Libyan	6	3.0
8	Yemen	4	2.0
9	Kyrgyz	4	2.0
10	Kazakh	4	2.0
11	Moroccan	2	1.0
12	Iraqi	4	2.0
13	Kosovo	1	0.5
14	Ethiopia	2	1.0
15	Tajik	2	1.0
16	Pakistanis	2	1.0
17	Chadian	1	0.5
18	British	1	0.5
19	Lebanese	3	1.5
20	Zimbabwe	3	1.5
21	Cypriot	1	0.5
22	South Africa	1	0.5
23	Mali	1	0.5
24	Bangladeshi	1	0.5
25	Azerbaijan	1	0.5
26	Ghanaian	2	1.0
27	Motswana	1	0.5
28	Kurdish	2	1.0

29	Indian	1	.5
30	Sudanese	1	.5
	Total	**200**	**100.0**

Table one presents the nationality of students in the study sample and the frequencies of each one furthermore the percentages.

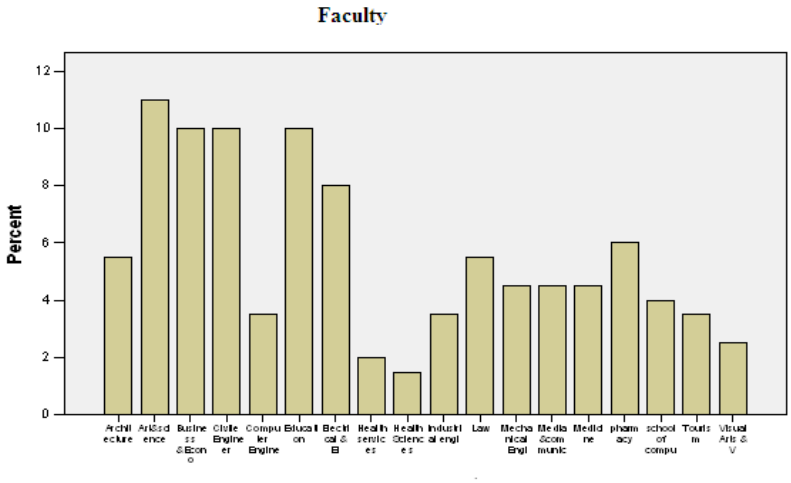
The sample in this study contains one students from each of Azerbaijan, Bangladesh, Chadian, Cyprus, India, Kosovo, Mali, Motswana ,South Africa and Sudan . On other hand two students from each of Ethiopia, Ghana, Kurdistan, Pakistan, Tajikistan and Morocco , 10 students from Iran, 4 students from each of Iraq, Yemen Kyrgyzstan and Kazakhstan.19 students from Jordan , 3 students from each of Zimbabwe and Lebanon , 7 from Libya , 27 from Nigeria, 14 from Palestine,16 from Syria and 63 from Turkey

Table 2 : Faculty Frequency

Faculty		**Frequency**	**Percent**
1	Architecture	11	5.5
2	Art & sciences	22	11.0
3	Business &Economics	20	10.0
4	Civil Engineering	20	10.0
5	Computer Engineering	7	3.5
6	Education	20	10.0
7	Electrical & Electronic Engineering	16	8.0
8	Health services	4	2.0
9	Health Sciences	3	1.5
10	Industrial engineering	7	3.5
11	Law –school of applied sciences	11	5.5
12	Mechanical Engineering	9	4.5

13	communication & Media studies	9	4.5
14	Medicine	9	4.5
15	Pharmacy	12	6.0
16	School of Computer &Technology	8	4.0
17	Tourism	7	3.5
18	Visual Arts & Visual Design	5	2.5
	Total	**200**	**100.0**

In term of faculty, 11 students from faculty of Architecture and law with percentage 5.5 %, 22 (11%) from faculty of Art & Sciences, 20 students from each of Business & Economics, Education and Civil Engineering with percentage 10 %, furthermore 3.5 % of the sample from each of Industrial engineering, Computer Engineering and Tourism also 16 from Electrical & Electronic Engineering. Mechanical Engineering, communication & Media studies and Medicine frequencies were similarly 9 with percentage 4.5 % of the sample size, 12 from faculty of pharmacy, 8 from school of computer & technology and 5 from Visual Arts & Visual Design. Finally, the sample consist of 3 students from the faculty of Health Sciences and 4 from Health services.



The graph shows the percentage of participants in this study according to faculty.

Table 3: The Gender Frequencies

No	The gender	Frequency	Percent
1	Male	134	67.0
2	Female	66	33.0
	Total	**200**	**100.0**

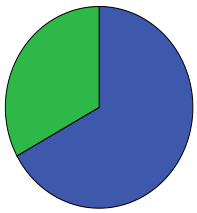


Table 3 indicates that there are 134 male students with percentage 67% and 33% of the participants are females.

Table 4: The Frequencies of Students Who Own a Computer and Who Don't Own Computer .

		Frequency	Percent
1	Own computer	193	96.5
2	don't own	7	3.5
	Total	**200**	**100.0**

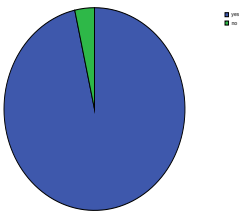


Table 4 shows that 96.5 % of the participants owning computer and 3.5 % they don't have own computer.

Table 5: The Age Frequencies

	The age	Frequency	Percent
1	<20 years	37	18.5
2	20-25 year	122	61.0
3	> 25 year	41	20.5
	Total	**200**	**100.0**

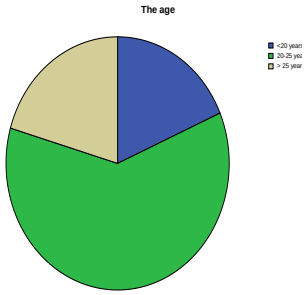
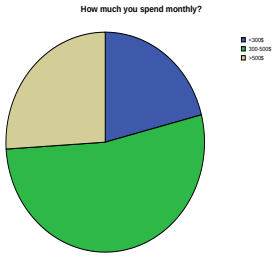


Table 5 indicates that 37 of the participants less than 20 years old with percentage 18.5 % and also 122 students their age between 20 to 25 with percentage 61%. The number of students their age more than 25 years old is 41 with percentage 20.5 %. The table shows that majority of participants their age between twenty and twenty-five.

Table 6: Monthly Expenditure Frequencies and Percentages

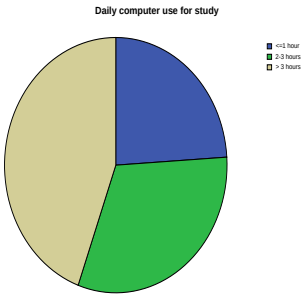
	Monthly expenditures	Frequency	Percent
1	<300$	42	21.0
2	300-500$	106	53.0
3	>500$	52	26.0
	Total	**200**	**100.0**



There are 42 of students with percentage 21% spends less than 300 dollars, 106 of the participants with percentage 53% in this survey their expenditures per month from 300 dollars to 500 dollars, 26% of the sample spend more than 500 dollars monthly. The table indicates that the majority of students in this study spends per month from three hundred dollars to five hundred dollars.

Table 7: The Frequencies and Percentages of the Daily Computer Use for Study.

		Frequency	Percent
1	<=1 hour	48	24.0
2	2-3 hours	63	31.5
3	> 3 hours	89	44.5
	Total	**200**	**100.0**



The table present that 48 of students in this survey using computer for study less of equal one hour per day and their percentage is 24 %. The number of the participants that they are using computer for study between two to three hour per day is 63 with percentage 31.5 %,and also 44.5 % of the sample their daily use of computer for study more than 3 hour.

Table 8 : The Frequencies and Percentages of Students Daily Internet Access for Study .

		Frequency	Percent
1	<= 1 hour	39	19.5
2	2-3 hours	64	32.0
3	> 3 hours	97	48.5
	Total	**200**	**100.0**

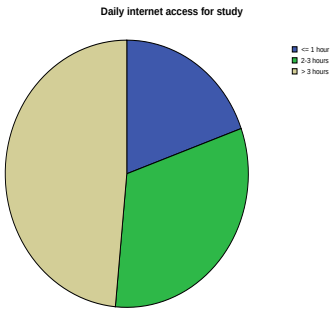


Table 8 indicates that 39 of participants their internet access for study less or equal 1 hour per day and their percentage is 19.5 %. On other hand, the number of students that they access internet for study from two to three hour per-day is 64 with percentages 32% also 48.5% of the sample their daily internet access for study more than three hour through each day.

Table 9: Frequencies of CGPA

		Frequency	Percent
1	**0-1**	4	2.0
2	**1-2**	14	7.0
3	**2-3**	84	42.0
4	**3-4**	98	49.0
	Total	**200**	**100.0**

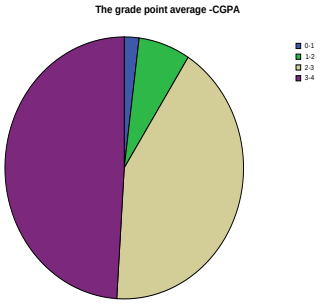
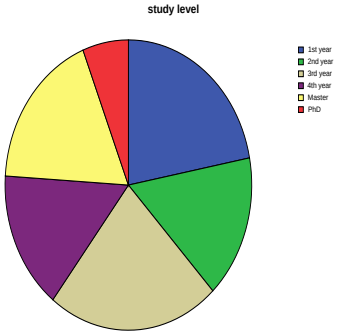


Table 9 shows that 2 % of the students in this sample with the CGPA between zero and one,7% of the participants with the CGPA between 1 to 2, 42% with CGPA 2-3 and 59 % of the study sample with the CGPA between 3 to 4.

Table 10: Study Level Frequencies and Percentages.

		Frequency	Percent
1	1st year	44	22.0
2	2nd year	32	16.0
3	3rd year	45	22.5
4	4th year	31	15.5
5	Master	36	18.0
6	PhD	12	6.0
	Total	**200**	**100.0**



The table provides information about the frequencies and percentages for both of postgraduates students and undergraduates students they were involved in this study ; 44 of participants with percentage 22 % in the first year,16% in the second year, 22.5 % in the third year and 15.5 % of the study sample were included the students in the fourthyear. The number of the master students they were surveyed is 36 with percentage 18 % and 6% of the study sample were Doctoral students.

Table 11: Means and Standard Deviations for the Answers of Students on the Statements of the Questionnaire

	Statements	**Mean**	**Std. Deviation**
1	Using the ETs in classroom is fun.	4.21	0.963
2	By using ETs I learn better.	4.31	0.771
3	Using ETs in lessons motivates me.	4.08	0.945
4	According to me the usage of ETs is not enough in the learning process.	3.56	2.346
5	I don't like lessons in which ETs are used.	3.6	1.223
6	I believe that if I learn the usage of the ETs it will be beneficial for me.	4.17	0.923
7	I like to write my assignments and reports by computer.	3.88	1.264
8	Use ETs in education is a waste of time.	4.06	1.010
9	My concentration is lost in the lessons when ETs are used.	3.81	1.104
10	My learning slows down in the lessons when ETs are used.	3.9	1.145
11	Using ETs in the lessons bore me.	2.1	1.083
12	Using ETs in education is not necessary.	2.07	1.136
13	When ETs are used in the lessons I get more benefit.	3.9	1.034
14	Using ETs makes my ability and motivation to learn more.	3.99	0.985
15	When ETs are used in learning I develop skills related to the course.	4.16	0.803
16	ETs facilitate the understanding of difficult courses better.	3.95	0.986
17	I follow the courses better by using the ETs.	3.92	1.019
18	My academic performance increases with the help of ETs.	3.93	0.977
19	My academic confidence increases with ETs.	3.75	1.08
20	Students' do not perform better from the use of ETs in classroom.	3.44	1.08
21	I do my academic homework faster by using ETs.	4.03	1.046
22	ETs allow me to apply the acquired knowledge.	4.01	0.992
23	I solve my educational problems better with ETs.	3.97	1.029
24	I communicate with others by using ETs like e-mail for educational purposes.	4.25	0.861
25	I use ETs like internet for educational purposes.	4.22	0.875
26	ETs are useful to my studies.	4.39	0.878
	The questionnaire as a whole	**3.84**	**1.071**

The results in table 11 indicate that the students have positive attitudes and performance while they using educational technologies, where the questionnaire as a whole obtained a mean more than three. Both of items "Using ETs in the lessons bore me" and "Using ETs in education is not necessary" obtained a mean less than other items in the questionnaire.

4.2 Anova Analysis of Independent Variable and Questionnaire Items

Table 12: Anova Analysis of (Nationality, Faculty, Age ,Monthly Expenditure ,Daily Computer Use for Study, Daily Internet Access for Study and Study Level)

The number	The questionnaire items	Nationality	Faculty	The gender	Own computer	The age	Monthly expenditure	Daily computer use	Daily internet access	CGPA	Study level
1		**sig**	**sig**	**sig**	**sig**	**sig**	**sig**	**sig**	**sig**	**sig**	**sig**
	Using the ETs in classroom is fun.	**.001**	.162	.330	.296	.790	.790	.821	.643	.196	.469
2	By using ETs I learn better.	.365	.509	.708	.358	.839	.839	.867	.084	.944	.972
3	Using ETs in lessons motivates me.	.252	.904	.848	.420	.657	.657	.839	.527	.504	.457
4	According to me the usage of ETs is not enough in the learning process.	.380	**.035**	.616	.295	.446	.446	.313	.757	.100	.925
5	I don't like lessons in which ETs are used.	.827	.146	.273	.617	.416	.416	.105	**.010**	.774	.244
6	I believe that if I learn the usage of the ETs it will be beneficial for me.	.480	.481	.576	.064	.254	.254	.127	**.018**	.065	.454
7	I like to write my assignments and reports by computer.	.761	.915	.203	.430	.693	.693	**.005**	**.018**	.208	.154
8	Use ETs in education is a waste of time.	.383	.991	.650	.426	.919	.919	.780	.925	.206	.929
9	My concentration is lost in the lessons when ETs are used.	.591	.190	.527	.867	.192	.192	.792	.650	.970	.745
10	My learning slows down in the lessons when ETs are used.	.770	.581	.609	.700	.709	.709	.308	.540	.199	.712
11	Using ETs in the lessons bore me.	.750	.383	.698	.718	.270	.270	.880	.788	.338	.446
12	Using ETs in education is not necessary.	.724	.476	.703	.106	.814	.814	.320	.600	.063	.453

13	when ETs are used in the lessons I get more benefit.	.702	.127	.424	.841	.416	.416	.112	**.019**	.119	.923
14	Using ETs makes my ability and motivation to learn more.	.206	**.014**	.134	.509	.142	.142	.368	**.006**	.349	.543
15	When ETs are used in learning I develop skills related to the course.	.647	.696	.812	.558	.563	.563	.720	.535	.351	.648
16	ETs facilitate the understanding of difficult courses better.	.357	.867	.961	.224	.940	.940	.150	.071	.093	.265
17	I follow the courses better by using the ETs.	.219	.404	.664	.517	.331	.331	.811	.163	.071	.772
18	My academic performance increases with the help of ETs.	.961	.128	.597	.459	.350	.350	.182	.249	**.016**	.108
19	My academic confidence increases with ETs.	.711	.116	.316	.128	.308	.308	.599	.092	**.000**	.810
20	Students' do not perform better from the use of ETs in classroom.	.720	.590	.187	.545	.672	.672	.834	.472	.904	.471
21	I do my academic homework faster by using ETs.	.714	.534	.595	.981	.368	.368	.449	.080	**.030**	.610
22	ETs allow me to apply the acquired knowledge.	.972	.271	.470	.677	.317	.317	.079	.415	**.009**	.588
23	I solve my educational problems better with ETs	.513	.303	.989	.927	.464	.464	.275	.120	**.015**	.881
24	I communicate with others by using ETs like e-mail for educational purposes.	.998	.679	.602	.784	.962	.962	.087	.375	.069	.666
25	I use ETs like internet for educational purposes.	**.039**	**.001**	.572	.394	.596	.596	**.003**	**.002**	.196	.492
26	ETs are useful to my studies.	.894	.156	.919	.151	.267	.267	**.022**	.125	.188	.470

4.2.1 Anova Analysis of Faculty

Table 13: Anova Analysis of Faculty and the Questionnaire Statements (Items)

Statements	df	Mean Square	F	Sig.
4. According to me the usage of ETs is not enough in the learning process.	17	2.381	1.767	**.035**
	182	1.348		
	199			
14.Using ETs makes my ability and motivation to learn more.	17	1.778	1.988	**.014**
	182	.894		
	199			
25.I use ETs like internet for educational purposes.	17	1.692	2.493	**.001**
	182	.679		
	199			

4.2.1.1 Crosstabulations of Faculty

Table 14: The Faculty and Students Answers on the Item .

According to me the usage of ETs is not enough in the learning process.						
Faculty	**SD**	**D**	**U**	**A**	**SA**	**Total**
School of Computing &Technology	1	2	2	3	0	**8**
Education	3	5	3	6	3	**20**
Business &Economics	4	10	2	2	2	**20**
pharmacy	5	4	2	1	0	**12**
Health Sciences	3	0	0	1	0	**4**
Health services	1	0	2	0	0	**3**
Medicine	4	4	1	0	0	**9**
Industrial engineering	3	1	2	1	0	**7**
Electrical & Electronic Engineering	1	7	2	6	0	**16**
Visual Arts & Visual Design	1	1	3	0	0	**5**
Law-school of Applied sciences	2	3	2	1	3	**11**
Art and Sciences	3	8	3	7	1	**22**
Mechanical Engineering	4	1	4	0	0	**9**
communication &media studies	0	3	1	4	1	**9**
Tourism	1	4	2	0	0	**7**
Architecture	1	3	3	3	1	**11**
Civil Engineering	3	5	5	7	1	**21**
Computer Engineering	1	2	3	0	0	**6**
Total	**41**	**63**	**42**	**42**	**12**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

The table 14 shows that 8 (4%) from School of computing &technology, 3 students agreed that the usage of ETs is not enough in the learning process and three disagreed that while two students undecided.20 students from the faculty of education with percentage 10% ; 9 students agreed that the usage of ETs is not enough in the learning process, three students answered undecided while 8 students disagreed.20 (10%) from the faculty of Business and Economics ; 4 students agreed the item, 2 students answered undecided and 14 students disagreed.12 students with percentage 6% from the faculty of pharmacy ; no one answered strongly agree, one students answered agree, 2 participants selected the option undecided, 4 students answered disagree and 5 students their answers were strongly disagree. 2% of the participants from the faculty of Health Sciences their answer as follows ; one students answered agree and three students answered on the item strongly disagree.

3(1.2%) participated in this survey and their answers were; 2 students answered the item undecided, one person strongly disagree.4.5 % of the participants from the faculty of Medicine ; one students answered undecided, 4 students disagreed.16(8%) from the faculty of Electrical and Electronic Engineering ; 8 students disagreed, two students undecided, one agree that the usage of ETs is not enough in the learning process.3.5 % of the sample from the faculty of Industrial engineering; one students agree while two students undecided and one students disagreed.2.5 % of the students from Visual Arts and Visual Design their answers as follows ; 3 students answered undecided and two students disagreed. 11(4.5%) of students were participated in this survey from the faculty of Law-school of Applied sciences ; 4 students agreed the item “According to me the usage of ETs is not enough in the learning process “, two

undecided while 5 students disagreed. 22(11%) Art and science faculty; 8(4%) of the students disagreed, 1.5 % of the students undecided whilst 11(5.5%) disagreed that the usage of educational technologies is not enough in learning process.9(4.5 %) students from the department of Mechanical Engineering ; 5 of them disagreed and 4 students undecided. 9(4.5%) students from the faculty of communication & media studies, five students agreed that the usage of educational technologies not enough for learning process wile three disagreed furthermore, one student undecided.7 (3.5%) students from the tourism faculty 5 students disagreed and tow participants undecided.

5.5 % of the sample from faculty of architecture, four students agreed that the usage of educational technologies not enough in learning process similarly 4 students disagreed whilst three students selected the answer undecided. 21(10.5%) of the study sample from the faculty of Civil Engineering ; 8 participants agreed the item wile 8 students disagreed it whereas, 5 students undecided . 3% of the participants in this survey studying Civil Engineering their answers on the item as follows : three students undecided , similarly three students disagreed the item.

Table 15: The Faculties and Students Answers on the Item.

Using ETs makes my ability and motivation to learn more.						
Faculty	**SD**	**D**	**U**	**A**	**SA**	**Total**
School of Computing & Technology	0	0	0	7	1	**8**
Education	1	0	2	6	11	**20**
Business & Economics	0	0	4	11	5	**20**
Pharmacy	0	0	3	2	7	**12**
Health Sciences	2	1	0	1	0	**4**
Health Services	0	0	0	2	1	**3**
Medicine	0	0	1	6	2	**9**
Industrial Engineering	1	1	0	4	1	**7**
Electrical & Electronic Engineering	0	1	0	4	11	**16**

Visual Arts & Visual Design	0	1	1	2	1	**5**
Law-School of Applied Sciences	0	0	5	4	2	**11**
Art & Sciences	1	2	2	9	8	**22**
Mechanical Engineering	0	0	3	4	2	**9**
Communication & Media Studies	1	1	0	3	4	**9**
Tourism	0	0	2	3	2	**7**
Architecture	0	0	5	2	4	**11**
Civil Engineering	1	1	3	13	3	**21**
Computer Engineering	0	0	1	4	1	**6**
Total	**7**	**8**	**32**	**87**	**66**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**:Agree,**SA**: Strongly Agree.

Table 15 indicates that 4% of the participants in school of computing and technology agreed that educational technologies makes students ability and motivation to learn more similarly Medicine students faculty , 17 (8.5%) of students in the faculty of Education agreed that while 8% of participants in this study in both of Business &Economics and Electrical &Electronic Engineering departments agreed, 9 (4.5%) of pharmacy students agreed the item while one students in HealthSciences agreed and three disagreed that whereas, three students with percentage 1.5% who studying in Health services department agreed that the educational technologies makes their ability and motivation to learn more.5(2.5%) of students who are studying industrial engineering agreed the item wile 2(1%) don't agree. Three students from Visual Arts&Visual Design agreed the item whilst one disagreed. 3% of participants from the faculty of law agreed that. On other hand, 8.5 % of students who are studying in the faculty of Art and sciences agreed that educational technologies enhance them to learn more while 1.5 % of students in the same faculty disagreed. The number of students who were participated in this study from the faculty of Communication & Media who showed their acceptance of the item 7 students with percentage 3.5% while one students disagreed the item. 6(3%) of students who are studying Mechanical Engineering agreed the item. 2.5% of the participants from Tourism

department agreed and 6(3%) of Architecture students agreed also. Majority of the participants who are studying Civil Engineering agreed that educational technologies encourage them to learn more and increase their ability. All of the participants who are studying computer engineering in this study agreed the item.

Table 16: The Faculty and Students Answers on the Item.

I use ETs like internet for educational purposes.						
Faculty	**SD**	**D**	**U**	**A**	**SA**	**Total**
School of Computing &Technology	0	0	1	5	2	**8**
Education	0	0	0	9	11	**20**
Business & Economics	0	0	2	5	13	**20**
Pharmacy	0	0	0	7	5	**12**
Health Sciences	0	1	0	1	2	**4**
Health Services	0	0	1	1	1	**3**
Medicine	0	0	1	6	2	**9**
Industrial Engineering	0	1	1	4	1	**7**
Electrical & Electronic Engineering	0	0	0	4	12	**16**
Visual Arts & Visual Design	0	0	1	2	2	**5**
Law-School of Applied Sciences	0	2	1	6	2	**11**
Art & Sciences	0	2	5	6	9	**22**
Mechanical Engineering	0	0	0	5	4	**9**
communication & Media Studies	1	0	1	4	3	**9**
Tourism	0	0	1	3	3	**7**
Architecture	0	0	1	2	8	**11**
Civil Engineering	2	0	7	8	4	**21**
Computer Engineering	0	0	0	2	4	**6**
Total	**3**	**6**	**23**	**80**	**88**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree

7(3.5%) of participants from School of Computing and Technology agreed the item "I use ETs like internet for educational purposes", 20(10%) of students from Education faculty also agreed, 18(9%) of students who are studying in Business &Economics agreed that, 12(6%) of Pharmacy students also agreed,3(1.5%) of the participants in this study who are studying in Health Sciences department agreed while 0.5% disagreed. 2(1%) of students from Health services department agreed

and 8(4%) of the students from Medicine faculty agreed while 5(2.5%) of students who are studying industrial engineering agreed the item whilst one student disagreed.16(8%) of the participants who are studying in the department of Electrical and Electronic Engineering agreed. All of the participants in this study who are studying Visual Arts and Visual design agreed. On other hand eight students with percentage 4% from law faculty agreed while 2 students in this faculty disagreed the item. In contrast, the number of students who are studying in the faculty of Art and sciences and agreed is 15 students with percentage 7.5 % while two students disagreed.

All of the participants in this study who are studying Mechanical engineering agreed that where their number 9 with percentage 4.5%. 7(3.5%) of students from Communication & Media studies faculty agreed while 0.5 % of the participants in this faculty disagreed. All of participants from Tourism faculty agreed similarly the participants from both of Computer Engineering department and Architecture department. The number of participants in this study from Civil Engineering is 21 students with percentage 10.5%; 14 (7%) agreed while 2(1%) of students disagreed that they use educational technologies like internet for educational purposes.

4.2.2 Anova Analysis of Nationality and the Items of Questionnaire

Table 17: Anova Analysis of Nationality and the Items

Statements	**df**	**Mean Square**	**F**	**Sig.**
Using the ETs in classroom is fun.	29	1.725	2.180	**.001**
	170	.792		
	199			
I use ETs like internet for educational purposes.	29	1.116	1.581	**.039**
	170	.706		
	199			

4.2.2.1 Crosstabulation of Nationality

Table 18 : Crosstabulation of Nationality and the Item .

Using the ETs in classroom is fun.						
Nationality	**SD**	**D**	**U**	**A**	**SA**	**Total**
Turkish	2	2	3	15	41	**63**
Nigerian	1	0	3	7	16	**27**
Jordanian	0	3	4	8	4	**19**
Palestinian	0	0	0	7	7	**14**
Syrian	0	0	1	11	4	**16**
Iranian	0	0	0	5	5	**10**
Libyan	0	1	1	3	1	**6**
Yemen	0	0	0	4	0	**4**
Kyrgyz	1	1	0	2	0	**4**
Kazakh	0	1	0	2	1	**4**
Moroccan	0	1	0	1	0	**2**
Iraqi	0	0	0	2	2	**4**
Kosovo	0	0	0	1	0	**1**
Ethiopia	0	0	0	1	1	**2**
Tajik	0	0	0	0	2	**2**
Pakistanis	0	1	0	1	0	**2**
Chadian	0	0	0	1	0	**1**
British	0	0	0	1	0	**1**
Lebanese	0	0	0	2	1	**3**
Zimbabwe	0	0	0	1	2	**3**

Cypriot	0	0	0	0	1	**1**
South Africa	0	0	0	1	0	**1**
Mali	0	1	0	0	0	**1**
Bangladeshi	0	0	0	0	1	**1**
Azerbaijan	0	0	1	0	0	**1**
Ghanaian	0	0	0	1	1	**2**
Motswana	0	0	0	1	0	**1**
Kurdish	0	2	0	0	0	**2**
Indian	0	0	0	0	1	**1**
Sudanese	0	0	0	0	1	**1**
Total	**4**	**13**	**13**	**78**	**92**	**200**

SD: Strongly Disagree, D: Disagree, U: Undecided, A: Agree,SA: Strongly Agree.

66(33%) students from Turkey agreed that using educational technologies in classroom is fun while 4(2%) disagreed. 23 (11.5%) students from Nigeria agreed whilst one students disagreed.12(6%) students from Jordan agreed furthermore three students disagreed. 14(7%) students from Palestine agreed the item. 15(7.5%) students from Syria agreed,10(5%) students from Iran agreed that, 4(2%) students from Libya agreed while one disagreed. 4(2%) students from Yemen agreed the item. 2(1%) students from Kyrgyzstan agreed and 2(1%) disagreed,3(1.5%) students from Kazakhstan agreed whilst one students disagreed. One student from Morocco agreed and one other disagreed, 4(2%) students from Iraq agreed the item also one student from Kosovo agreed the item. 2(1%) students from Ethiopia agreed and 2(1%) Tajikistan agreed that using educational technologies in classroom is fun furthermore one student from Pakistan agreed and one other disagreed that. One student's chad agreed and also one other from British agreed. Three students from Lebanon agreed the item and other three from Zimbabwe agreed also one from Cyprus agreed that and another one from South Africa agreed as well. One student from Mali disagreed the item, one student from Bangladesh agreed, and two students with percentage 1%

from Ghana agreed and one student from Motswana agreed. Two students from Kurdistan disagreed, one from each of Sudan and India agreed the item.

Table 19: Crosstabulation of Nationality and the Item .

I use ETs like internet for educational purposes.						
Nationality	**SD**	**D**	**U**	**A**	**SA**	**Total**
Turkish	1	4	9	21	28	**63**
Nigerian	0	1	1	8	17	**27**
Jordanian	1	0	4	10	4	**19**
Palestinian	0	0	0	6	8	**14**
Syrian	0	0	1	7	8	**16**
Iranian	0	0	2	4	4	**10**
Libyan	0	0	1	3	2	**6**
Yemen	0	0	1	3	0	**4**
Kyrgyz	0	0	1	1	2	**4**
Kazakh	0	0	0	2	2	**4**
Moroccan	0	0	0	1	1	**2**
Iraqi	0	0	0	3	1	**4**
Kosovo	1	0	0	0	0	**1**
Ethiopia	0	0	0	0	2	**2**
Tajik	0	0	0	1	1	**2**
Pakistanis	0	0	0	0	2	**2**
Chadian	0	1	0	0	0	**1**
British	0	0	0	1	0	**1**
Lebanese	0	0	1	1	1	**3**
Zimbabwe	0	0	1	2	0	**3**
Cypriot	0	0	0	0	1	**1**
South Africa	0	0	0	0	1	**1**
Mali	0	0	0	1	0	**1**
Bangladeshi	0	0	0	0	1	**1**
Azerbaijan	0	0	0	1	0	**1**
Ghanaian	0	0	0	1	1	**2**
Motswana	0	0	0	1	0	**1**
Kurdish	0	0	1	1	0	**2**
Indian	0	0	0	1	0	**1**
Sudanese	0	0	0	0	1	**1**
Total	**3**	**6**	**23**	**80**	**88**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

49 (24.5)students from Turkey agreed that they use internet for educational purposes while 5(2.5%) students disagreed that.25(12.5%) students from Nigeria agreed the item furthermore one student disagreed.14(7%) students form Jordan agreed while one disagreed.14(7%) students from Palestine agreed the item also 15(7.5%) students from Syria agreed the item as well and 8(4%) students from Iran agreed that, 5(2.5%) students from Libya agreed,3 (1.5%) from Yemen agreed and three students from Kyrgyzstan agreed also four students from Kazakhstan with percentage 2% agreed the item similarly four students from Iraq agreed. Two students from Morocco with percentage 1% agreed the item "I use ETs like internet for educational purposes ". In contrast, one students from Kosovo disagreed. Two students from each of Tajikistan and Pakistan agreed the item. one students from Chad with percentage 0.5% disagreed whereas one student from each of British, Cyprus, south Africa, India, Sudan, Motswana, Azerbaijan , Kurdistan, Bangladesh and Mali agreed the item and tow students from each of Lebanon, Zimbabwe and Ghana agreed.

4.2.3 Anova Analysis of Daily Computer Use for Study

Table 20: Anova Analysis of Daily Computer Use for Study and Items

Statements	df	Mean Square	F	Sig.
I like to write my assignments and reports by computer.	2	8.369	5.425	**.005**
	197	1.543		
	199			
I use ETs like internet for educational purposes.	2	4.458	6.125	**.003**
	197	.728		
	199			
ETs are useful to my studies.	2	2.927	3.910	**.022**
	197	.749		
	199			

3.2.3.1 Crosstabulation of Daily Computer Use for Study

Table 21: Crosstabulation of Daily Computer Use for Study and the Item.

I like to write my assignments and reports by computer.						
		SD	**D**	**U**	**A**	**SA**
Daily computer use for study	<= 1 hour	6	6	8	11	17
	2-3 hours	8	7	6	20	22
	> 3 hours	2	6	8	30	43
Total		**16**	**19**	**22**	**61**	**82**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

14 % of the students who use the computer less and equal one hour per day agreed the item "I like to write my assignments and reports by computer while 12 % disagreed and 8 studentsundecided. 44(22%) students who use computer for study per day from two to three hours agreed while 14 disagreed furthermore, 6 (3%) answered undecided. The total number of students who use computer more than three hours per-day is 89 with percentage 44.5 % their answers as follow ; 74 (37%) agreed the item whereas 8 students disagreed moreover 8 undecided.

Table 22: Crosstabulation of Daily Computer Use for Study and the Item

		I use ETs like internet for educational purposes.					**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily computer use for study	<= 1 hour	1	4	10	19	14	**48**
	2-3 hours	1	1	7	25	29	**63**
	> 3 hours	1	1	6	36	45	**89**
Total		**3**	**6**	**23**	**80**	**88**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

33(16.5%) students who use computer for study per day less than one hour and equal one hour greed the item "I use ETs like internet for educational purposes " while 5 students with percentage 2.5% disagreed on other hand, 10 students undecided. 34 of

the students who use the computer for study from two to three hours per day agreed the item in contrast, two students disagreed also 7 students answered undecided. 81(40.5%) students agreed the statement "whilst two students disagreed and 6 students undecided.

Table 23: Crosstabulation of Daily Computer Use for Study and the Item .

		ETs are useful to my studies.					**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily computer use for study	<= 1 hour	1	2	8	13	24	**48**
	2-3 hours	3	1	5	21	33	**63**
	> 3 hours	0	2	1	30	56	**89**
Total		**4**	**5**	**14**	**64**	**113**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

37 students who use computer <= 1 hour per day for study agreed the item " educational technologies useful to me "while 3 (1.5%) students disagreed and 8 (4%) their answers were undecided. 54 (27%) students who selected the option two to three hours for daily computer use for study agreed that educational technologies useful for their studies while four students disagreed that furthermore five students answered undecided. According to the daily use computer for study more than three hours 86 (43 %) students agreed that the educational technologies more benefit for their studies whilst two students disagreed that whereas, one student undecided.

4.2.4 Anova Analysis of Daily Internet Access for Study

Table 24: Anova of Daily Internet Access for Study and the Questionnaire Items

Statements	**df**	**Mean Square**	**F**	**Sig.**
I don't like lessons in which ETs are used.	2	6.833	4.737	**.010**
	197	1.442		
	199			
I believe that if I learn the usage of the ETs it will be beneficial for me.	2	3.387	4.099	**.018**
	197	.826		

	199			
I like to write my assignments and reports by computer.	2	6.380	4.083	**.018**
	197	1.563		
	199			
When ETs are used in the lessons I get more benefit.	2	4.197	4.045	**.019**
	197	1.038		
	199			
Using ETs makes my ability and motivation to learn more.	2	4.828	5.189	**.006**
	197	.930		
	199			
I use ETs like internet for educational purposes.	2	4.661	6.421	**.002**
	197	.726		

2.4.4.1 Crosstabulation of Daily Internet Access for Study

Table 25: Crosstabulation of Daily Internet Access for Study and the Item .

I don't like lessons in which ETs are used.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for study	<= 1hour	9	5	4	14	7	**39**
	2-3 hours	4	8	10	32	10	**64**
	>3 hours	6	8	13	40	30	**97**
Total		**19**	**21**	**27**	**86**	**47**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree

21(10.5%) students who access internet for study per day one hour and less agreed the item "I don't like lessons in which educational technologies are used ",while 14(7%) students disagreed and also 4 students demonstrated neutral situation. 43(21.5%) students who have internet access for study between two to three hours per day agreed this item in contrast, 12 (6%) disagreed and 10 (5%) selected the answer undecided. 70 (35%) students agreed in contrary, 14(7%) disagreed that furthermore, 13(16.5%) participants status neutrality.

Table 26: Crosstabulation of Daily Internet Access for Study and the Item .

I believe that if I learn the usage of the ETs it will be beneficial for me.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for study	<= 1 hour	2	3	7	16	11	**39**
	2-3 hours	1	2	6	28	27	**64**
	>3 hours	3	0	7	44	43	**97**
Total		**6**	**5**	**20**	**88**	**81**	**200**

SD: Strongly Disagree, **D**:Disagree,**U**: Undecided, **A**:Agree,**SA**: Strongly Agree.

The students who access internet one hour and less of hour per day for study their answer as follows; 27(13%) agreed the item "I believe that if I learn the usage of the ETs it will be beneficial for me ", 5(2.5%) students disagreed this item and 7 (3.5%) students demonstrated neutrality. The students who access internet from two to three hours per day 55 of them agreed whilst three students disagreed whereas 6 (3%) answered undecided. The students who access internet per day more three hours and agreed the item shape 43.5% of the total number of students and also 3 (1.5%) students disagreed whilst 7(3.5%) students neutralized this item.

Table 27 : Crosstabulation of Daily internet Access for Study and the Item .

I like to write my assignments and reports by computer.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for study	<= 1 hour	5	5	10	8	11	**39**
	2-3 hours	6	6	5	20	27	**64**
	>3 hours	5	8	7	33	44	**97**
Total		**16**	**19**	**22**	**61**	**82**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**:Agree,**SA**: Strongly Agree

19 (9.5%) students who access internet one hour and less hour per day agreed the item "I like to write my assignments and reports by computer" while 10 (5%) students disagree this item furthermore 10 (5%) selected undecided. 47 (23.5%) students said that they access internet between two to three hours per day for study they like to write assignments and reports by using computer while 12 (6%) students

they disagreed and also 5 (2.5%) students demonstrated neutral status. The students who access internet more than three hours per day for educational purposes and agreed the item are 77 students with percentage 38.5% while the number of students who disagreed 13 students with percentage 6.5 % in contrast 7 students answered undecided.

Table 28 : Crosstabulation of Daily Internet Access for Study and the Item .

When ETs are used in the lessons I get more benefit.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for study	<= 1 hour	3	3	12	14	7	**39**
	2-3 hours	1	7	7	29	20	**64**
	>3 hours	4	4	9	48	32	**97**
Total		**8**	**14**	**28**	**91**	**59**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**:Agree, **SA**: Strongly Agree

21(10.5%) students who access internet for learning goal one hour and less one per day agreed that using educational technologies through lessonsprovides benefits for them while 6(3%) disagreed this item moreover, 12 (6%) students selected undecided. The students who access internet for study between two to three hours per day demonstrated agreement on the item whilst 8(4%) students disagreed and also 7(3.5%) students answered undecided. On the other hand, the group of students who access internet for educational purposes more three hours each day weekly and demonstrated agreement on the item contains 80 students with percentages 40% in contrast, the number of students who disagree this item is 8 students with percentage 4% whereas 9 (4.5%) students answered undecided**.**

Table 29: Crosstabulation of Daily Internet Access for Study and the Item .

Using ETs makes my ability and motivation to learn more.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for	<= 1 hour	2	4	11	14	8	**39**

study	2-3 hours	1	0	10	28	25	**64**
	>3 hours	4	4	11	45	33	**97**
Total		**7**	**8**	**32**	**87**	**66**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

22(11%) students who access the internet one hour and below one hour for study agreed that using educational technologies increase their ability and motivation to learn whilst 6(3%) disagreed that and also 11(5.5%) students demonstrated neutral. 53 (26.5%) students who access the internet from two to three hours per day to support their learning process agreed that using educational technologies motivates them to learn more and increase their ability to learn, one student disagreed and 5 % answered undecided. The students who access internet more than three hours per day for educational purposes and agreed were 78 students with percentage 39 % while the number of students who disagreed 8 with percentage 4% furthermore, the number of students who answered undecided were 11 students with percentage 5.5 %.

Table 30 : Crosstabulation of Daily Internet Access for Study and the Item .

I use ETs like internet for educational purposes.							**Total**
		SD	**D**	**U**	**A**	**SA**	
Daily internet access for study	<= 1 hour	0	4	9	17	9	**39**
	2-3 hours	1	1	6	29	27	**64**
	>3 hours	2	1	8	34	52	**97**
Total		**3**	**6**	**23**	**80**	**88**	**200**

SD: Strongly Disagree, **D**:Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

26 (13%) students who access internet one hour and less of hour per day said that they use internet for educational purposes wile 4 (2%) students disagreed the item and also 9 (4.5%) students answered undecided.36(18%) students who access internet between 2 to 3 hours per day agreed the item whilst 2 students disagreed and 6(3%) were indicated neutral status. 86(43%) students who access internet for

educational goals agreed the statement “I use ETs like internet for educational purposes” however, 3(1.5%) students disagreed that and 8 (4%) their answer undecided.

4.2.5 Anova Analysis of CGPA

Table 31: Anova of CGPA with the Questionnaire Items.

Statements	**df**	**Mean Square**	**F**	**Sig.**
My academic performance increases with the help of ETs.	3	3.259	3.547	**.016**
	196	.919		
	199			
My academic confidence increases with ETs.	3	7.694	7.219	**.000**
	196	1.066		
	199			
I do my academic homework faster by using ETs.	3	3.242	3.053	**.030**
	196	1.062		
	199			
ETs allow me to apply the acquired knowledge.	3	3.747	3.975	**.009**
	196	.943		
	199			
I solve my educational problems better with ETs.	3	3.668	3.599	.015
	196	1.019		
Total	**199**			

4.2.5.1 Crosstabulation of CGPA

Table 32: Crosstabulation of CGPA and the Item .

My academic performance increases with the help of ETs.							**Total**
		SD	**D**	**U**	**A**	**SA**	
CGPA	**0-1**	0	0	3	1	0	**4**
	1-2	1	2	4	7	0	**14**
	2-3	0	3	21	33	27	**84**
	3-4	3	7	15	36	37	**98**
Total		**4**	**12**	**43**	**77**	**64**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree

1(0.5%) students of the CGPA within zero to one agreed the item “My academic performance increases with the help of ETs “ while 3(1.5%) undecided. 7 (3.5%) students of CGPA within 1-2 agreed moreover, 3(1.5%) disagreed and 4(2%) demonstrated neutral status. 60 (30%) students who their CGPA between two to three believed that their academic performance increases with the help of educational technologies whilst three of the students in the same CGPA class disagreed the item whereas 21(10.5%) they said undecided. 73(36.5%) students of the CGPA from three to four agreed this item whilst 10 (5%) disagreed and 15 students with percentage 7.5 % undecided about this item.

Table 33: Crosstabulation of CGPA and the Item.

My academic confidence increases with ETs.							**Total**
		SD	**D**	**U**	**A**	**SA**	
CGPA	**0-1**	0	2	1	1	0	**4**
	1-2	3	4	2	5	0	**14**
	2-3	3	4	20	31	26	**84**
	3-4	3	9	14	47	25	**98**
Total		**9**	**19**	**37**	**84**	**51**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**:Agree, **SA**: Strongly Agree .

Two students with CGPA from zero to one disagreed the item “My academic confidence increases with ETs” while one student agreed it furthermore, one student undecided. 5 (2.5%) students with CGPA between 1-2 agreed that their academic confidence increase with educational technologies on other hand, 7 (3.5%) students disagreed and two students answer undecided.57(28.5%) students with CGPA from two to three agreed the item while 7(3.5%) disagreed and 20 (10%) students undecided. the number of students who agreed that their academic confidence growths with educational technologies is 72 students with percentage 36% furthermore 12 students disagreed that while 14 (7%) neutral.

Table 34: Crosstabulation of CGPA and the Item

I do my academic homework faster by using ETs.							**Total**
		SD	**D**	**U**	**A**	**SA**	
CGPA	**0-1**	0	1	2	1	0	**4**
	1-2	1	3	0	4	6	**14**
	2-3	0	4	8	36	36	**84**
	3-4	4	10	12	35	37	**98**
Total		**5**	**18**	**22**	**76**	**79**	**200**

SD: Strongly Disagree, **D**: Disagree,**U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

One student of CGPA between zero to one agreed the item "I do my academic homework faster by using ETs" and one disagreed this item moreover tow students undecided. 10(5%) students who CGPA between one to two agreed the item whilst 4 (2%) students disagreed it. 72 (36%) students who CGPA in category between two to three agreed this item on other hand four students with percentage 2% disagreed and 8 (4%) undecided. the number of students who agreed this item and follow the category 3-4 of CGPA is 72 with percentage 35% in contrast 14(7%) students disagreed and 12(6%) demonstrated neutral status.

Table 35: Crosstabulation of CGPA and the Item .

ETs allow me to apply the acquired knowledge.							**Total**
		SD	**D**	**U**	**A**	**SA**	
CGPA	**0-1**	1	0	1	2	0	**4**
	1-2	0	5	1	5	3	**14**
	2-3	2	2	10	35	35	**84**
	3-4	3	5	13	46	31	**98**
Total		**6**	**12**	**25**	**88**	**69**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

2(1%) students within CGPA between zero and one agreed that educational technologies allow them to apply the acquired knowledge whereas one student disagreed that.8(4%) students within CGPA between one to two agreed this item

whilst 5(2.5%) disagreed it.77(38.5%) students agreed the item "ETs allow me to apply the acquired knowledge" while who their CGPA follow the category 3-4 furthermore 8(4%) disagreed it.

Table 36: Crosstabulation of CGPA and the Item .

I solve my educational problems better with ETs.							**Total**
		SD	**D**	**U**	**A**	**SA**	
CGPA	**0-1**	1	0	2	1	0	**4**
	1-2	0	4	2	6	2	**14**
	2-3	2	1	19	29	33	**84**
	3-4	4	6	11	42	35	**98**
Total		**7**	**11**	**34**	**78**	**70**	**200**

SD: Strongly Disagree, **D**: Disagree, **U**: Undecided, **A**: Agree, **SA**: Strongly Agree.

One student within CGPA 0-1 agreed the item "I solve my educational problems better with ETs" in contrast one students disagreed. 8(4%) who their CGPA in the category 1-2 agreed this item and they believe that they can solve their instructional problem better with educational technologies whilst 4(2%) disagreed this statement. 62(31%) students within CGPA between two to three agreed while 3 (1.5%) disagreed.77(38.5%) participants within CGPA between three to four agreed the item whereas 10(5%) students in the same category of CGPA disagreed the item.

4.3 T-test Analysis of Gender

Table 37: T-test Analysis of Gender, Owning Computer and Questionnaire Items.

		The gender	Owning computer
No	**The questionnaire items**	**sig**	**sig**
1	Using the ETs in classroom is fun.	.330	.296
2	By using ETs I learn better.	.708	.358
3	Using ETs in lessons motivates me.	.848	.420
4	According to me the usage of ETs is not enough in the learning process.	.616	.295

5	I don't like lessons in which ETs are used.	.273	.617
6	I believe that if I learn the usage of the ETs it will be beneficial for me.	.576	.064
7	I like to write my assignments and reports by computer.	.203	.430
8	Use ETs in education is a waste of time.	.650	.426
9	My concentration is lost in the lessons when ETs are used.	.527	.867
10	My learning slows down in the lessons when ETs are used.	.609	.700
11	Using ETs in the lessons bore me.	.698	.718
12	Using ETs in education is not necessary.	.703	.106
13	when ETs are used in the lessons I get more benefit.	.424	.841
14	Using ETs makes my ability and motivation to learn more.	.134	.509
15	When ETs are used in learning I develop skills related to the course.	.812	.558
16	ETs facilitate the understanding of difficult courses better.	.961	.224
17	I follow the courses better by using the ETs.	.664	.517
18	My academic performance increases with the help of ETs.	.597	.459
19	My academic confidence increases with ETs.	.316	.128
20	Students' do not perform better from the use of ETs in classroom.	.187	.545
21	I do my academic homework faster by using ETs.	.595	.981
22	ETs allow me to apply the acquired knowledge.	.470	.677
23	I solve my educational problems better with ETs.	.989	.927
24	I communicate with others by using ETs like e-mail for educational purposes.	.602	.784
25	I use ETs like internet for educational purposes.	.572	.394
26	ETs are useful to my studies.	.919	.151

The table gives indication according to the gender and owning computer that the statistical significant for each item in the questionnaire has value more than0.05.

Chapter 5

DISCUSSION AND CONCLUSION

The current study executed to investigate the attitudes and performance of students toward educational technologies at Eastern Mediterranean University, North Cyprus. The data obtained by using survey provided the researcher with a comprehensive insight on the topic,this chapter presents the findings from the attitudes and performance scale are summarized also answers the main question and sub-questions of the research are presented, the data was collected from the questionnaire furthermore the chapter concluded with determining the factors influencing on students attitudes and performance while using educational technologies.

5.1 Study and Finding Summarizing

The principal purpose of the study was to analyze the attitudes and performance of university students towards Educational technologies. The present study also analyzed students attitudes and performance towards educational technologies with respect to gender, owning computer, age, nationality, faculty, study level, daily use of computer for study, daily internet access for study, CGPA, monthly expenditure. Where this study conducted in the university with total number of participants 200 students distributed on 18 faculties, a quantitative research approach was used to gather and analyze the data. An attitude and performance scale was designed and administrated to the participants. The study measurement have two sections, the first sections includes information related to the student information ; nationality, faculty, owning computer, gender, age, daily use of computer for study ,

daily access of internet for study, study level, monthly spending, CGPA and the second part contains statements concentrate on the educational technologies, in this section students were asked to answer the scale items (strongly agree, agree, undecided, disagree, strongly disagree). The final results obtained through statistical analyzing by using SPSS program.

5.2 Discussion

This part includes the answer of the main question and sub-questions that stated in chapter one in this study.

5.2.1 What are the attitudes and performance of students towards educational technologies?

With regard to this question, the study reviled majority of students held a positive attitudes and performance towards educational technologies, because the mean of the scale is 3.84. The reasons of the positively attitudes and performance of students toward educational technologies in Eastern Mediterranean University may be related to availability of those technologies, ease usage of those technologies, students desire to keep up with innovations and using educational technologies by instructors in classroom generates motivation of students in order to utilize technology in their learning life furthermore majority of students became as digital students they prefer technological devices also the social network sites play a high role in shaping students attitudes and performance toward educational technologies because those sites are using for educational purposes and entertainment simultaneously where the internet network and the availability of open source platforms are contributing in that.

5.2.2 Are there statistically significant differences in the attitudes and performance of students' attribute to their gender?

When the students attitudes and performance toward educational technologies were investigated in relation to their gender, the findings explored no statistically significant differences between the male and female students , may be related to the equal learning opportunities were provided to both of male and female as well the absence of skills differences gradually and also the new trends toward micro-technologies creates zero differences between males and females.

5.2.3 Are there statistically significant differences in the attitudes and performance of students' attribute to their age?

When the student's attitudes and performance toward educational technologies were explored in relation to their age, the findings find out no significant differences among the three categories of students ages, may be because the importance of educational technologies for all of students in different ages moreover, the new generation of students have ability and positive desire to use those technologies

5.2.4 Are there statistically significant differences in the attitudes and performance of students' attribute to their level of study?

When the student's attitudes and performance toward educational technologies were explored in relation to their study level, the findings find out no significant differences among bachelor level, master level and doctoral level, may be because educational technologies beneficial for all of study level .On other hand, the new students' disciplines and courses along with the computer advances became relying on computers and technological devices with regardless to the level of study.

5.2.5 Are there statistically significant differences in the attitudes and performance of students' attribute to their CGPA?

When the participants attitudes and performance toward educational technologies were explored in relation to their CGPA, the results revealed positive impact of

CGPA, may be this is relay on the correlation between the academic achievement and the trends towards optimizing the usage of educational technologies in learning process ; the students who have a high CGPA shown strongly positive attitudes to use computers, web pages, platforms, internet and so on to study and doing assignment more than the student who have low CGPA.(i.e. the high CGPA contributing in shaping the positive attitudes toward using educational technologies indoor and outdoor).

5.2.6 Are there statistically significant differences in the attitudes and performance of students attribute to their owning computer?

When the students attitudes and performance toward educational technologies were investigated in relation to owning computer, the findings revealed no significant differences between the two groups; who own computer and who don't own computer, the reason may be because the low price of computer nowadays assists students to own computer and also the availability of computer labs in the campus provides all of students the same opportunities to use computers and internet access.

5.2.7 Are there statistically significant differences in the attitudes and performance of students' attribute to their faculty?

Findings in this study showed there are significant differences in the attitudes and performance of students while they use educational technologies. Maybe this differences due to the nature of courses and disciplines furthermore, the students in education department believed that using educational technologies is not enough in learning process compared with other departments students. On other hand, the students from each of Civil Engineering, Education,Business &Economics, Electrical & Electronic Engineering and Art & Sciences have positive attitudes toward the role of educational technologies in increasing their motivation and ability to lean more

than other departments.

5.2.8 Are there statistically significant differences in the attitudes and performance of students' attribute to their nationality?

When the student's attitudes and performance toward educational technologies were examined in relation to their nationality, the results reveled significant difference among the nationalities, the differences had been favor into the Turkish students. May be because the growing interest in the field of technology in Turkey contributed in shaping positive trends among students in the early stages of compulsory education more than other countries.

5.2.9 Are there statistically significant differences in the attitudes and performance of students' attribute to their monthly expenditure?

While the attitudes and performance of university students toward educational technologies were investigated in relation to their monthly spending, the findings detected no statistically significant difference among the three monthly expenditure categories; less than 300 dollars, 300 to 500 dollars and more than 500 dollar.

5.2.10 Are there statistically significant differences in the attitudes and performance of students' attribute to their daily computer use for study?

When the students' attitudes and performance toward educational technologies were examined in relation to their daily use of computer for study, the findings revealed a significant difference favor to the category 2-3 hours per day and the category more than three hours per day. My be because the computer became an essential device for learning process furthermore, the new trends toward the integration of computer and internet in learning process through the evolution of information communication technologies. In contrast, the computer provides facilities for learners and instructors

whilst the awareness of the important of using computer in high educational institutions increases gradually.

5.2.11 Are there statistically significant differences in the attitudes and performance of students' attribute to their daily internet access for study?

When the students' attitudes and performance toward educational technologies were examined in relation to their daily internet access for study, the findings revealed a significant difference favor to the category 2-3 hours per day and the category more than three hours per day. May be due to the important of internet for learning process and availability of instructional resources through the internet, the adoption and use of learning management system in the university also using electronic materials by instructors have been motivated students to use internet for educational purpose in order to follow the courses.

5.3 Conclusion

Educational technologies are the most important fields in learning environment, the new trends in higher educational institutions are attempting to find out the attitudes of students toward those technologies in order to improve learning outcomes and optimizing the usage of technologies in order to facilitate learning furthermore to provides a new generation able to lead the societies in the correct way along with globalization after the birth of micro-computers, smart board, smart phone, material relying on internet and the widely use of open recourse platform such as learning management system, blackboard, MOOC and so on. Measuring the attitudes and performance toward educational technologies moreover, determining the factors influencing on students attitudes take into consideration by researchers nowadays , the present study revealed the Eastern Mediterranean University students attitudes and performance while they use educational technologies, the study revealed the

students are possessing a positive attitudes and performance toward educational technologies on other hand this study determined the factors that impact on their attitudes and performance while they use those technologies. The findings in this study shown that the gender, age and owning computer variables dose not influence on students attitudes and performance whilst, nationality, CGPA, daily computer use for study, daily internet use for study and faculty effect on the attitudes and performance of students while they use educational technologies.

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APPENDICES

Appendix A : Students' Questionnaire in English Language

Your Nationality:_____ Your Department: _____

Your gender is**:** a)Male b) Female

Do you own a computer? a)Yes b) No

Your age is: a) <20 years b) 20 -25 years c) >25 years

How much you spend monthly: a) < 300 $ b) 300 – 500 $ c) > 500 $

Daily computer use for study**:** a) <= 1 hour b) 2 - 3 hours c) > 3 hours

Daily internet access for study: a)<= 1 hour b) 2 - 3 hours c) > 3 hours

Your grade point average CGPA: a) 0 – 1 b) 1 – 2 c) 2 – 3d) 3 - 4

Your level of study: a) 1st year b) 2nd year c) 3rd year d) 4th year e) Master c) PhD

ETs : Educational Technologies: tools, devices and electronic materials that use in learning process such as computers, smartphones, projectors, smart boards, web pages, Moodle platforms, blogs,wikis, forums, CD or DVD, MP3, MP4, E-learning tools, instructional programs… etc **Please mark the most appropriate one with respect to educational technologies (ETs).**		**Strongly Agree**	**Agree**	**Undecided**	**Disagree**	**Strongly Disagree**
1	Using the ETs in classroom is fun.					
2	By using ETs I learn better.					
3	Using ETs in lessons motivates me.					
4	According to me the usage of ETs is not enough in the learning process.					
5	I don't like lessons in which ETs are used.					
6	I believe that if I learn the usage of the ETs it will be beneficial for me.					
7	I like to write my assignments and reports by computer.					
8	Use ETs in education is a waste of time.					
9	My concentration is lost in the lessons when ETs are used.					
10	My learning slows down in the lessons when ETs are used.					
11	Using ETs in the lessons bore me.					
12	Using ETs in education is not necessary.					
13	when ETs are used in the lessons I get more benefit.					
14	Using ETs makes my ability and motivation to learn more.					
15	When ETs are used in learning I develop skills related to the course.					
16	ETs facilitate the understanding of difficult courses better.					
17	I follow the courses better by using the ETs.					
18	My academic performance increases with the help of ETs.					

19	My academic confidence increases with ETs.					
20	Students' do not perform better from the use of ETs in classroom.					
21	I do my academic homework faster by using ETs.					
22	ETs allow me to apply the acquired knowledge.					
23	I solve my educational problems better with ETs.					
24	I communicate with others by using ETs like e-mail for educational purposes.					
25	I use ETs like internet for educational purposes.					
26	ETs are useful to my studies.					

Thank you …

Appendix B : Students' Questionnaire in Turkish Language

Uyruğunuz:_____ Bölümünüz:_____

Cinsiyet**:** a)Erkek b) Bayan

Bilgisayarınızvarmı? a) Evet b) Hayır

Yaşınız: a) <20 yıl b) 20 -25 yıl c) >25yıl

Aylıkharcamanız: a) < 300 $ b) 300 – 500 $ c) >500 $

Eğitimiçin Günlük Bilgisayar kullanımınız**:** a) <= 1 saat b) 2 - 3 saat c) >3saat

EğitimiçinGünlük internet kullanımınız: a)<= 1 saat b) 2 - 3 saat c) > 3 saat

Genelortalamanız (CGPA): a) 0 – 1 b) 1 – 2 c) 2 – 3 d) 3 - 4

Eğitimdurumunuz: a) 1.Sınıfb) 2.sınıf c) 3. Sınıf d) 4.sınıf e) Master c) Doktora

	Eğitim Teknolojileri: öğrenme surecinde kullanılan bilgisayarlar, cep telefonu, projektörler, akıllı tahtalar, web sayfaları, moodle, cd gibi elektronik materyaller ve araç gereçlerdir. (Wiki, blogs, mp3, mp4,Eğitim programları, simülasyon programları ve medya ses). **<u>Uygun cevabı seçiniz lütfen</u>**	**KesinlikleKatılıyorum**	**katılıyorum**	**Kararsızım**	**katılmıyorum**	**KesinlikleKatılmıyorum**
1	Sınıfta eğitim teknolojilerini kullanmak eğlencelidir.					
2	Eğitim teknolojilerini kullanarak daha iyi öğreniyorum.					
3	Derste eğitim teknolojilerini kullanmak beni motive ediyor.					
4	Bana göre, eğitim teknolojileri kullanımı öğrenme sürecinde yeterli değildir.					
5	Eğitim teknolojileri kullanılan dersleri sevmiyorum.					
6	Eğitim teknolojilerinin kullanımını biliyorsam, benim için faydalı olacağına inanıyorum.					
7	Bilgisayarla ödevlerimi ve raporlarımı yazmayı seviyorum.					
8	Eğitimde eğitim teknolojileri kullanımı zaman kaybıdır.					
9	Eğitim teknolojileri kullanıldığında, benim derste konsantrasyonum kayboluyor. (derse odaklanamıyorum).					
10	Eğitim teknolojileri kullanıldığında, derste öğrenmem					

	azalıyor.					
11	Derste eğitim teknolojileri kullanıldığında, ben sıkılıyorum.					
12	Eğitimde, eğitim teknolojileri kullanımı gereksizdir.					
13	Derste eğitim teknolojileri kullanıldığında, daha çok faydalanırım.					
14	Eğitimde eğitim teknolojileri kullanımı, benim daha iyi öğrenmem için yeteneğimi ve motivasyonumu sağlıyor.					
15	Öğrenmede eğitim teknolojileri kullanıldığında, dersle ilgili becerilerimi geliştiririm.					
16	Eğitim teknolojileri zor olan derslerin daha iyi anlamamı kolaylaştırır.					
17	Eğitim teknolojileri kullanarak dersleri daha iyi takip ederim.					
18	Eğitim teknolojilerinin yardımıyla akademik performansım artıyor.					
19	Eğitim teknolojileriyle akademik güvenim artıyor.					
20	Sınıfta eğitim teknolojileri kullanıldığında, öğrenciler daha iyi performans gösteremiyor.					
21	Eğitim teknolojilerini kullanarak akademik ödevlerimi daha hızlı yaparım.					
22	Eğitim teknolojileri edinilen bilgilerin uygulamasını sağlar.					
23	Eğitim teknolojileriyle, eğitimsel problemlerimi daha iyi çözebilirim.					
24	Eğitim amaçları için e mail gibi eğitim teknolojileri kullanarak insanlarla iletişim kurarım.					
25	Internet gibieğitimteknolojilerini, eğitimselamaçlariçinkullanırım.					
26	Eğitim teknolojileri benim çalışmalarım için faydalıdır.					

Çok teşekkür ederim…