

**BAŞKENT UNIVERSITY
INSTITUTE OF EDUCATIONAL SCIENCES
DEPARTMENT OF FOREIGN LANGUAGES
MASTER PROGRAM OF ENGLISH LANGUAGE TEACHING WITH
THESIS**

**AN INVESTIGATION OF
ELT TEACHERS' INFORMATION AND COMMUNICATION
TECHNOLOGIES (ICT) SELF EFFICACY LEVELS
(A CASE OF LIBYA)**

PREPARED BY

MANAL HADI TAYEP ZAROUG

MASTER'S THESIS

ANKARA-2022

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**THESIS ADVISOR
ASSIST. PROF. DR. SELIM SONER SÜTÇÜ**

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BAŞKENT ÜNİVERSİTESİ EĞİTİM BİLİMLERİ ENSTİTÜSÜ

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BAŞKENT ÜNİVERSİTESİ
EĞİTİM BİLİMLERİ ENSTİTÜSÜ
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ONAY

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Dr. Öğr. Üyesi Selim Soner Sütçü

İmza:



To my children, my family and my husband

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Manal Hadi Tayep ZAROUG
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ÖZET

Manal Haid Zaroog
İngilizce Öğretmenlerinin Bilgi ve İletişim Teknolojileri (BİT) Öz-
Yeterliklerinin İncelenmesi
Libya Örneği

Başkent Üniversitesi
Eğitim Bilimleri Enstitüsü
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İngiliz Dili Öğretimi Tezli Yüksek Lisans Programı

2022

Bu araştırma, İngilizce öğretmenlerinin Bilgi ve İletişim Teknolojilerine (BİT) yönelik öz-yeterlik düzeylerini ve öz-yeterlik düzeyleri ile demografik özellikleri arasındaki ilişkiyi incelemeyi amaçlamaktadır. Veriler, 2020-2021 eğitim öğretim yılında bir ölçek (bilgisayar öz-yeterlik ölçeği (CSES) kullanarak toplanmıştır. Veriler, katılımcılarla ilgili kişisel bilgilerle birlikte BİT teknolojilerinin kullanımına ilişkin maddeleri içermektedir. Çalışma 176 Libyalı öğretmen üzerinde yürütülmüştür. Zawia Üniversitesi'nde iki fakültede (Sanat Fakültesi ve Eğitim Fakültesi) görev yapan İngilizce öğretmenleri üzerinde yürütülmüştür. SPSS paket programında betimsel istatistikler kullanılarak veriler analiz edilmiştir. Öğretmenlerin çoğunun BİT düzeyleri orta düzeydedir. Bunun yanı sıra sonuçlar, öğretmenlerin öz-yeterlik düzeyleri ile iş deneyimi, yaş, bilgisayar ve internet kullanım süresi gibi demografik özellikleri arasındaki ilişkinin de anlamlı düzeyde pozitif olduğunu ortaya koymuştur. Sonuçlar öğretmenlerin BİT'e yönelik öz-yeterliklerinde bilgisayar ve internet kullanım süreleri, deneyim ve yaşın da hayati bir rol oynadığını ve bu konulardaki bilgi azlığı ve yetersizliinin öz-yeterlik düzeylerini azaltıp, engel olduğunu ortaya koymuştur.

Anahtar Kelimeler: Öz yeterlik, İngiliz dili öğretimi, bilgi ve iletişim teknolojileri, BİT entegrasyonu

ABSTRACT

Manal Haid ZAROOG

**An Investigation of
ELT Teachers' Information and Communication
Technologies (ICT) Self Efficacy Levels
(A Case of Libya)**

**Bağkent University
Institute of Educational Sciences
Department of Foreign Languages
Master Program in English Language Teaching with Thesis**

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This research aims to examine ELT teachers' self-efficacy levels towards Information and Communication Technologies and the relation between their self-efficacy levels and demographic traits. The data was collected through a scale (a computer self-efficacy scale (CSES) during the 2021-2020 academic year. The data included items related to the use of ICT technologies with personal information about the participants. The study was conducted on 176 Libyan English language teachers in Zawia at Zawia University in Two Faculties (Faculty of Art and Faculty of Education). Descriptive statistics were used to analyze the data in SPSS program. The findings of this study show that the majority of teachers' self-efficacy levels towards Information and Communication Technologies are at moderate level. Results further revealed that the relation between their self-efficacy level and demographic traits is significantly positive in terms of work experience, age, period of using computer and Internet. It can be concluded that duration of computer and internet use, experience and age play a vital role in teachers' self-efficacy towards Information and Communication Technologies and the lack of such knowledge and skills decrease their self-efficacy levels and hinder it.

Keywords: Self-efficacy, English language teaching (ELT), Information and communication technologies (ICT), ICT integration.

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ABBREVIATIONS

ICT	Information and Communication Technology
EFL	English as a Foreign Language
ELT	English Language Teaching
SE	Self-Efficacy
IT	Information Technology
TCSES	Teachers' Computer Self-Efficacy Scale
SPSS	Statistical Package for Social Sciences

CHAPTER I

INTRODUCTION

The introduction part of this study comprises of background of the study, the brief presentation of statement of the problem, purpose of the study including research questions, significance of the study, and delimitations and limitations of the study.

1.1. Background of the Study

Technology has seen a wide integration into standard of living and a great amount of information is becoming easily accessible. Especially, information and communication technologies (ICT) which contain the internet-based and portable technologies as well as non-modern technologies such as phones, VT and radio broadcast have changed each point of human endeavor and have become crucial instruments in human life. Generally, ICT is pivotal for quality of administration in commerce, instruction, social and political angles of human endeavor (Pegu, 2014; Kaur, 2015).

For the last two decades, the integration of ICT in instruction has become a necessary part of effective learning and teaching process. To meet demands of digitally grown-up learners, instructors have to play an important part. Simply, instructors have to be facilitators, instead of being conventional teachers and they ought to bolster and direct students' learning. The instruction framework comprises of three primary components that are related with each other. These components are learners, instructors and educational modules. The quality of the instruction depends on the agreement among these components. In line with this, successful utilization of ICT in educational setting has to be closely related with accomplishing these interrelated vital elements. Learners' interests regularly grow by using instructive innovation, especially, when fun games and new teaching styles are being brought into classrooms. The expanding utilization of ICTs in colleges and universities gives amazing opportunities for universities by decreasing barriers of time and place of study as well as the size of audiences (McCann et al., 1998 and Brown, 2002). In other words, the novelty of the modern technology or learners' encounter of those advanced technology within the classroom can upgrade learners' engagement and inspiration to do satisfying tasks.

The concept of self-efficacy is a concept which was put forward by Bandura (1977) who is one of the pioneers of self-efficacy theory. He defines it as the individual's seen capacity to succeed or fulfill certain tasks. Particularly, measures of self-efficacy must be self-report as it were individual who can precisely depict convictions in one's capacity. According to Tunçeli (2013), self-efficacy is "individual's ability to perform a job, personal judgment on the ability to achieve".

Self-efficacy clarifies the recognition of how individuals feel, how they think, how propelled they are and how they carry on themselves. Be that as it may, the components that impact self-efficacy convictions towards technology integration stay generally vague, especially when analyzing the conceivable impacts of teachers' demeanors towards innovation conjointly their coordinate application in their lesson plans (Brown, Holcomb and Lima, 2010). In recent years, self-efficacy has appeared as one of the critical factors to distinguish the emotional measurement of learning (Tekerek, Ercan, Udum, and Saman 2012). Educators' beliefs play a vital part in changing teachers' innovation integration into guidelines practices. Therefore, the relations between teachers' convictions and teachers' skills ought to offer assistance to center on how instructors make technology integration choices. Besides that, in the event that a teacher has a sense of certainty in their instructing capacities and accepts s/he can control her/his classroom, there's likely to be going with feeling of joy (Bolton, 2018).

Studies that look at the connections between technology use and self-efficacy exist. A reasonable positive correlation between pre-service teachers' self-efficacy to use ICT as a supportive tool (e.g., to choose or design instructional ICT applications or the use of ICT to track students' learning progress) and their efficacy to use ICT in the teaching process is found in the Tondeur et al. (2017) study (e.g., support pupils to present information by means of ICT or to motivate pupils to use ICT in a positive way). Other research (such as Sang et al., 2010) has confirmed the association between the two categories of ICT abilities and indicated that consistent ICT use is the most important sign of ICT use in classrooms.

The present study aims to investigate the self-efficacy levels of ELT teachers towards ICT. Along with this aim the study also tries to shed light on the relations between self-efficacy levels and teachers' demographics.

1.2. Statement of the Problem

ICTs development has given modern choice to universities around the world, which struggle to save the goals of quality, efficiency and effectiveness, for promoting teaching and learning. Sanchouli, Mahmoodi, Sanchouli and Moghadam (2015) stated that ICT is rapidly gotten a handle on by each instructive foundation as a positive target towards progressing the execution, learning speed, flexibility, intelligence and empowering learners to be more self-administer. Despite the fact that instruction may be a social activity and that teachers are often the center of the educational process, ICTs are a highly potent instrument for disseminating information and knowledge, which is a key component of the educational process.

However, teachers' competences in using new technologies in teaching and learning show a tendency to get better as they grow in self-efficacy (Jungert & Rosander, 2010; Abulibdeh & Hassan, 2011). As Leach and Moon (2008) said a higher understanding of teachers' convictions may improve effectively the reinforcement of pedagogies as well as learning styles and different methods with ICT. From the educational perspective, self-efficacy has been distinguished to have a coordinate relationship to learners' capacity which has an effect influence on their success (Brozo & Flynn, 2008). That is to say, self-efficacy feeds both teaching and learning.

Despite their effects on language instruction process, few analysts have combined technology and self-efficacy in their research. These two factors are crucial for educators and university management in order to acquire the demands at colleges and universities and prepare necessary instruction programs. The major issue is that formal applications for grants to upgrade the technology in their classes may cause a language instructor hassle.

1.3 . The Purpose of Study

The purpose of this study, which relies on quantitative data analysis, is to determine how confident public university teachers were about using ICT in their English classrooms. The study also seeks to investigate the relationships between the computer self-efficacy levels of EFL teachers and their demographic traits, including gender, age, and experience.

For the current research, Libyan English foreign language teachers who teach at a university in Libya in Zawia city were invited to take part in the study. Finally, the researcher aims to provide suggestions for personal and institutional development in terms of using ICT in classrooms.

1.4. Research Questions

The general aim of the study was to examine the levels of university teacher's computer self-efficacy. For this aim, answers to the following research questions will be sought:

Q1- What are ELT teachers' self-efficacy levels towards Information and Communication Technologies?

Q2- Is there a relation between their self-efficacy levels and demographic traits?

1.5. The Significance of Study

A contemporary teacher must consider a student's incentive to recall information as well as the effects of cutting-edge technology on the intended lesson if they are to create classrooms fit for the 21st century and satisfy the demands of learners. At that time, it is crucial to address teachers' technology self-efficacy and identify how it may be impacted (Farah, 2011).

In March 2003, Charles Clarke (as cited in AL-Badawi Hafez) stated said that information and communication technologies (ICTs) goes right through the instruction framework from early a long time to higher instruction and makes a difference boost guideline. Also, he added that ICT can make a genuine contribution to education and can involve and enthuse all ages of students especially when instruction framework improves in the next few years, the function of ICT will have gotten to be progressively critical.

Indeed, with innovation being utilized in standard of living as often as possible, there are numerous colleges and universities which are not able to supply required chances to their instructors and students. In other words, universities administrators or the authorities have little or no interest to determine teachers' self-efficacy to apply using technology in teaching process. Regarding that, the research (Charles Clarke,2003) disregards the problematic issues and makes suggestions. To have the correct educating aptitudes, it's better to have an accurate understanding about technology and self-efficacy.

New technologies are shaping how we will teach in the future. Teaching and learning aspirations have recently progressed. Integrating technology requires an entire extend of precautions. A few studies on self-efficacy have been carried out in Libya and related literature shows that a gap exists in Libya in terms of ICT use by ELT teachers at universities. Hence, the

current study examines the relationship between self-efficacy and technology use. Accordingly, the study is highly significant in the area of teaching English as a second language. The current research is given much more relevance by the primary importance of technology that is emphasized in this study as well as the specific information on the teacher's involvement in using this new technology in every day classroom settings.

In Libyan education, ICT is being used once in a while in a few schools and universities which may lead to a few learning impediments. Rather than, the use of ICT in instruction is still within the early stages in Libya. However, a few Libyan educational divisions, particularly the higher educations and the colleges have a few essential ICT tools to improve learning in instruction and it is still in consideration arrange of selection of ICT into their curriculum. (Rhema & Miliszewska, 2010) and Abodher (2014) reports that “Using ICT in Libyan Universities has not yet been studied enough”. Therefore, in view of this gap the purpose of this study that is to be examined, is looking at the level of teachers’ self-efficacy abilities towards ICT in their teaching practice in higher education in Libya at Zawia university.

Based on the important role of self-efficacy towards positive technology integration experiences, Yeşilyurt et al. (2016) finds that there were limited studies related to teacher self-efficacy in relation to ICT integration. As a result, this study aims to help fill this gap within the context of Libya and contribute to the field by exploring teachers’ computer self-efficacy levels at university. Teachers’ demographic traits and their influence on teachers’ technology use is also investigated. In Libya, most of the previous studies have focused on teachers’ attitudes towards adopting ICT in teaching process and little studies have conducted on the nature of teachers’ self-efficacy in teaching with technology (Albion, 2001; Wang, Ertmer & Newby, 2004). Therefore, the current research has attempted to identify the perceived ability of a teacher to effectively integrate technology into their teaching practice.

Yeşilyurt et al. (2016) discovers a dearth of research on teacher self-efficacy in regard to ICT integration, despite the critical role that self-efficacy plays in successful technology integration experiences. Because of this, this study examines university teachers' levels of computer self-efficacy in an effort to close this gap and makes a contribution to the field. The demographic traits of instructors and how they affect their technology usage are also investigated. Few researches have been undertaken in Libya on the nature of teachers' self-efficacy in teaching using technology,

with the majority of earlier studies focusing on teachers' attitudes towards using ICT in the teaching process (Albion, 2001; Wang, Ertmer & Newby, 2004).

Moreover, one of the most fundamental purposes of this analysis is to enhance and encourage English Language teaching through suitable practices of technology to get students' interest. With the point of having created classroom, the study motivates teachers' self – efficacy and their capacity to apply distinctive strategies of new innovation.

1.6. Limitations and Delimitations

1.6.1 Limitations

The current study is conducted to examine computer self-efficacy levels of EFL teachers at a university in Libya. This research, like any other study, has a number of limitations. One of these limitations is the findings of the study related to participants' technical background and experiences. Also the results of this study **are limited** with the participant's answers' related to their individual features, which cannot be generalized to different settings, periods and groups. When describing a study's limitations, Kumar (1999) says:

“You will not have unlimited resources and as this may be primarily an academic exercise, you might have to do less than an ideal job. However, it is important to be aware of – and communicate – any limitations that could affect the validity of your conclusions and generalizations”.

1.6.2. Delimitations

The study is restricted in terms of participants and data which gathered from only 176 English language teachers at Zawia university in Libya. The participants group was a stuff of teachers who work in English Language department from two faculties (faculty of Education and faculty of Art) and have experienced from various subjects in English language. In addition, this study is a case study since it was restricted at only one university in one city in Libya. Therefore, the findings attained in this study were considered from the perspective of 176 English language teachers who responded to the scale and data collection tool used in the study were also the limitations of the study.

1.7. Definitions of Key Terms

1.7.1. Information and Communication Technology (ICT)

1.7.1.1. Theoretical definition

In a larger sense, information and communication technologies (ICTs) refer to evolving tools for accessing, gathering, controlling, manipulating, and displaying data. Hardware (such as computers and other devices), software programs, and connection (such as Internet access, a local organizing framework, and video conferencing) are all possible components of the technologies (UNESCO, 2005).

1.7.1.2. Operational definition

ICT is defined, for the context of this paper and its purpose, as improving the application of new ICT for teaching and learning in University of Zawia, Libya. Therefore, this thesis tended to explain ICT as the technologies that are utilized to handle information and communication technology.

1.7.2. Self-efficacy

1.7.2.1. Theoretical definition

Bandura (1997) explains generally perceived self-efficacy as “beliefs in one’s capabilities to organize and execute the courses of action required to produce given attainments.” From instructive perspective of the integration of technology into education, self-efficacy beliefs towards technology integration have been theorized to be an inevitable element in how well a teacher is able to successfully use technology to make a great progress in teaching and learning.

1.7.2.2. Operational definition

To apply the meaning of self-efficacy in the current research, EFL teachers' self-efficacy towards technology use were measured by Teachers’ Computer Self-Efficacy Scale (TCSES). The scale consists of two parts; demographic part and 35 statements which tries to identify the levels of computer self-efficacy of teachers with a 9-point Likert scale.

CHAPTER II

LITERATURE REVIEW

This study investigates using ICT in classrooms based on self-efficacy theory of English language teachers in Libyan state universities. Within this framework, literature review of this study includes related studies. Theoretical framework which explains Information, Communication and Technology, ICT in Higher Education, ICT in Libyan higher education, Self-efficacy theory, Teacher self – efficacy and Technology Self-efficacy.

2.1. Theoretical Framework

2.2.1. Information and Communication Technology

The term ICT was first used by Dennis Stevenson in a 1997 study about the role of IT in UK schools. He was assigned by the former UK Prime Minister Tony Blair to study the use of computers in schools when he watched that communication mediums and the Web have a crucial imperative impact on society as an entire society. That is why Stevenson proposed to include the word communications to "information technology" and refer to the term as Information and Communication Technology rather than only "IT".

However, Bladergroen et al., (2012) report that ICT may be a more self-evident term which certifies the work of amalgamated communications as well as the combination of broadcast communications, computers and the elemental computer program, middleware, capacity, and audio-visual frameworks that allow clients to follow up, exchange, store and control information (O'Brien & Marakas, 2010).

Moreover, ICT is alluded to as the progressed advances that are connected to get to ICT. It also refers to any electronic thing or gadget which empowers the capturing, putting truant, transmitting and showing up information and data electronically. This comprises the various hardware and software used by the Internet, as well as various other electronic devices such as digital television, wireless networks, cellular phones and satellite systems.

The term (ICT), which means Information and Communication and Technology, is considered to be a vital key in higher instruction. ICT is as often as possible used as an increased substitute for information technology (IT). It can be described as a combination of mechanical instruments and assets that are used to control and communicate the data. Ndwiki and Thinguri (2017) state that the impact of ICT on educating and learning has recently been the major player for quality instruction and also it has a full of feeling positive part in teaching-learning and investigate exercises.

In addition, ICT offers new styles of both learning and educating for all learners and instructors at all educational levels particularly at universities instruction level. Choudhary (2013) reports that creative educating methods are vital in higher instruction courses in case it is to catch attention and motivate new generations. he also believes that teachers of higher educational institutions are faced with the challenge to improve their educational level.

Meenakshi (2013) emphasizes the advantages of ICT in teaching and learning from the viewpoint of teachers, but she also notes that teachers are reluctant to use ICTs, particularly computers and the internet. Poor software design, doubts about computers' ability to improve learning outcomes, the need for authority, the added time and effort required to learn the technology and how to use it for teaching, and the worry that classroom management will suffer as learning becomes more student-centered are some of the reasons for this rejection.

2.2.2. ICT in Higher Education

Technology is an instructional instrument when it is utilized to lock in understudies and lead them towards developing unused information and aptitudes or skills. Technology also creates numerous learning chances since the get to the worldwide world it gives and the intelligently apparatuses it has. The vast growth of higher education in recent years needs an effort to achieve quality education in the society. This development has been supported by great progression in ICT to coordinate the changes taking put all inclusive. (Mondal and Mete, 2012).

Mondale and Mete further note the potential of ICTs as effective apparatuses for the dissemination of knowledge and information. Usage of ICT within the higher education framework may be a premise for alter over all levels of the instruction framework. Furthermore, integrating technology in businesses, data get to, instructional method, administration, investigate and

development are dependent on ICT use, requiring experts with ICT skill from higher education (Alam, 2016).

Moreover, ICT is utilized in tertiary education as a catalyst for the proficient advancement to encourage staff use of technology for pedagogies. (Melki, Nicolas, Khairallah, and Adra, (2017). On one hand, several authors warn that integrating any technology should keep up the caution of being in agreement with instructive objectives and not putting instruments some time recently instructive needs (Moreina, Rivero, & Alonso, 2016; Bosco, Valero, & Gil, 2016). On the other hand, using of ICT in teaching and learning effectively is a complex process that involves various teacher level and school level conditions (Aydin, Gurol, & Vanderlinde, 2016; Vanderlinde & van Braak, 2010).

The use of ICT in higher education, according to a research by Saikia (2017), is not only a means of advancing educational goals but also a means of contributing to the socioeconomic growth of society. The use of digital media and information is widespread throughout the world, and ICT is playing an increasingly significant role in education. In the twenty-first century, this significance will only increase. The quality of instruction delivered by information technology should advance within our higher education system. The way we think, work, and play are rapidly changing as a result of technology.

Although ICT use in higher education is a reality, there's still a need of true integration within the teaching-learning prepare due to destitute educator preparing (Camacho, Losa, Miransa & Cheyne 2014). Technology with the tools available in teaching process, it simplifies various tasks, including evaluation, make easy access of online tests and evaluation guidelines in the rubric module, which supports the application of various teaching and evaluation strategies. In many cases, this integration is formal and restricted using the virtual space as a store of substance (Berenguer & Molina, 2016).

There are some studies on higher education which uncovered that colleges and universities are confronted with challenges such as high cost of computers, a need of foundation, and the need for engineers with more knowledge, in this way emphasizing the require for them to be exceptionally centered and vital in their use of e-learning. In addition, Moakofhi, Leteane, Phiri, Polele and Sebalatlheng (2017) identify “four major challenges that should be taken in

consideration before: e-learning activity can be presented effectively: lacking of IT support, poor infrastructure, need of e-learning approach, and lack of university management support” (p. 4).

Generally, colleges and universities fail to incorporate in the academic teaching staff in the primer stages of applying technology in teaching and learning, and academic instructors were not mindful of the ICT approaches made. Numerous feared using advances for different reasons such as a need of abilities and information, a lack of time, students are not able to use technology effectively, and a lack of infrastructure (Dintoe, 2018).

Furthermore, universities as higher education institutions (HEIs) struggle to keep the goals of quality, proficiency, viability and effectiveness. The emergence of ICTs has given modern alternatives to colleges and universities around the world for upgrading teaching and learning. Similarly, ICTs improvement has put great pressure on HEIs worldwide to convey their instructive message (Brown, 2002).

In any event, institutions have begun to move away from face-to-face education and towards blended or entirely online learning, which offers the same courses and programs via a web-based platform. Universities and colleges compete in the labor market to attract students and/or employees who are enthusiastic about advancing their careers, the environment (internet connections, network, and bandwidth), the sorts of technology to be used, classrooms, academic faculty, and regulatory staff. Based on this, Bates (2011) said:

“The last development predicted during 2011 will be moves in some states and provinces toward shared software services between institutions. The rapid development of new technologies, the high cost of upgrading mission-critical software such as financial, student information and learning management systems, and the high risk of changing from one supplier to another puts a particularly heavy burden on small to medium sized institutions” (p. 17).

2.2.3. ICT in Libyan Higher Education

Recently, the vast developments in Information and Communication Technologies (ICT) have brought critical changes within the field of instruction, just as in numerous other perspectives of our day by day lives. These improvements have substantially had an effect on instructors., students, universities and schools specifically curricula, including teaching and learning process.

With the same bath of these developments, lately many developed and developing countries considered the use of ICT in education as a prominent leverage to attain instructive change and make strides the quality of instruction (Aydin, Gurol, & Vanderlinde, 2016; Cetinkaya, 2020).

ICT use has had a significant impact on Libyan higher education, and it is becoming increasingly important, particularly for the colleges instruction sector. ICT use will be crucial to changing how Libyan universities are run because it will allow graduate students and faculty to improve teaching and learning outcomes. It is at the core of the educational process and has developed into a development area for the higher education industry. Abukhattala (2016) conducts a research on the readiness of pre-service English language instructors in several high and secondary schools in Misurata, Libya, to incorporate technology. The results show that even while every participant was open to using technology to teach English as a foreign language, they realized some barriers to achieve this goal including lack of funding, scarcity of technological equipment in schools and lack of proper training to use technology.

However, it is argued that persuading instructors to use ICT in their everyday instructive instructing prepare isn't sufficient for joining ICT effectively. There are some internal factors of teachers should be taken into consideration such as self-efficacy, skills, knowledge and belief in its pedagogical importance, Sherman and Howard (2012).

2.2.4. Self-Efficacy Theory

Generally, self-efficacy is emerged from Social Cognitive Theory (SCT) and was developed by Albert Bandura who says that self-efficacy convictions or believes decide how individuals feel, think, propel themselves and behave (1994, p. 2). The effective and fruitful integration of ICT in instruction depends upon a number of variables which include aspects of the teacher's personality, like individual attitudes and believes or convictions around one's level of self-efficacy (Blonder et al., 2013).

Moreover, self-efficacy involves one 's own perceptions or considering almost his or her capacity and interfaces to inspiration and also connects to motivation. Individuals' contemplations impact their activities and persuade them to endeavor or limit from certain behavior. According to Bandura's (1997, p. 3) concept of "self-efficacy refers to a belief in one's capabilities to organize and execute the courses of action required to produce given attainments." Additionally, mastery

experiences, social modeling, social persuasion, and psychological reactions all contribute to the development of self-efficacy. The best method to build a strong sense of self-efficacy is to complete tasks effectively, as doing so reinforces our beliefs in our abilities. Failing the goal or challenge, however, might reduce self-efficacy (Bandura, 2004). Additionally, he contends that self-efficacy beliefs can become self-fulfilling prophecies since they are more potent than one's real talents. Furthermore, according to Bandura, self-efficacy in a certain area influences people's mental processes, levels of perseverance, levels of motivation, and emotional states with relation to activities in that area, affecting people's performances. Individuals perform better on a certain set of activities when they have higher self-efficacy beliefs.

Bandura (1994) identifies four sources of self-efficacy: mastery experiences from one's own experiences, vicarious experiences formed by observing others or role-models, social persuasion derived from related to other people's thoughts, and physical conditions that can result in stress, anxiety, or other emotions. In that regard, self-efficacy is crucial for an individual's drive and success (Bandura, 1986). This perspective applies to instructors as a result. The instructors' efficacy ideas and sentiments are one of the key factors influencing student accomplishment (Chacon, 2005; Ashton & Webb, 1986). Henson, Kogan & Haase (2001) claims that previous conceptions of teacher efficacy in education, however, have largely overlooked these sources of knowledge and their connection to efficacy and eventual conduct.

2.2.5. Teacher Self - Efficacy

According to Bandura (1994), there are various elements that either raise or lower the degree of self-efficacy. Self-efficacy can be influenced by one's actual performances, vicarious experiences, forms of persuasion in social situations, and physiological indexes.

Taylor & Betz (1983) report in a research that is based on Bandura's self-efficacy theory. They use career uncertainty to examine the usefulness of the hypothesis. A total of 154 students and 50 assignments encompassing 346 subjects were used in the study. Results indicate a high correlation between self-efficacy and all career levels. Self-efficacy is one of the most crucial elements in education, aside from its relationship to our accomplishments.

A teacher's self-efficacy is a "assessment of his or her capacities to bring about desired results of student engagement and learning, especially among those pupils who may be tough or

uninspired," according to the definition given from the standpoint of education (Moran & Hoy, 2001, p. 783). According to some studies, a teacher's self-belief in his or her capacity to positively influence student learning is crucial to the success or failure of their own teaching practices (Henson, Kogan & Haase 2001). Teachers have said that they feel inadequate while using new technology to educate (Martin, Shaw, & Daughenbaugh, 2014).

Moreover, the teacher essentially determines the degree of technological integration in every classroom. That is to say, instructors who have higher levels of self-efficacy use more creative teaching strategies (Bull, 2009; Guskey, 1988). Even pre-service teachers' self-perceptions of their own talents are likely to have an impact on how well they integrate technology when they start their careers as teachers (Abbitt, 2011). It has been demonstrated that a teacher's self-efficacy has a high correlation to their overall influence and degree of effectiveness. By raising teacher self-efficacy, instructors are more driven to adopt particular behaviors or new abilities to do a given task.

Studies have demonstrated the significance of a strong sense of efficacy for teachers. Teachers who have a strong sense of self-efficacy and believe they can have a good influence on students' learning and are more inclined to take part in professional development, which frequently results in the adoption of cutting-edge teaching techniques (Putman, 2012).

2.2.6. Technology Self-Efficacy

Technological self-efficacy (TSE) is the belief in one's ability to carry out current tasks in an inventive manner. Self-efficacy may depend on assessments of what a person can do with their aptitudes rather than their aptitudes themselves. For teachers to successfully maximize learning potential, they must understand not only how the technology works but also how the instructors make decisions (Pamuk, 2012).

Furthermore, technological self-efficacy (TSE) does not highlight particular modern technology tasks. It has intended to describe common feeling towards the capacity to embrace modern innovation and is in this manner generalizable over a number of particular innovations. Besides that, this term can account for and be connected to advances that have however to be designed. In spite of the fact that these highlights have permitted TSE to stay pertinent through the times, this definitional breadth has too made perplexity and an expansion of related developments.

The effectiveness of teachers in integrating technology in the classroom is influenced by a variety of factors in addition to their technical expertise (Miles, 2013). A good attitude towards technology, home Internet connection, time to integrate the curriculum, and vicarious experience are some of these factors. A strong feeling of computer self-efficacy is one of the fundamental prerequisites for positive self-efficacy about the use of computers for education (Kumar et al., 2008), making it necessary for instructors to integrate technology into their teaching practice (Teo, 2010). This statement may be used to summarize the significance of teachers' technology self-efficacy. The development of educators who can effectively utilize educational technology to improve student learning now depends critically on their level of technology self-efficacy. One of the most important factors in integrating technology into ELT lessons, along with parental, institutional, or environmental effects, is self-efficacy. Although there are more technology alternatives available in classrooms, few teachers are actually making the greatest use of these resources.

In other words, judgments are constrained to certain sorts of exhibitions as compared to, in general, an assessment of his or her potential. People's certainty in their capacity to perform certain assignments, or self-efficacy, has long been inspected to anticipate the degree to which they will lock in within the assignment (Bandura, 1986).

RUFORUM AGM Digest (2017) reports that the integration of ICT into higher education systems is in progress. Nowadays, computer technologies, Internet, television and other innovations supporting educating and learning are in use. The major reasons for the integration of ICT into higher learning institutions involve the sharing of instructive assets, availability for educating and learning assets and supporting capacity of the learners and instructors.

Meenakshi (2013) states that the main aims for the integration of ICT into teaching and learning are to enhance learning, to improve teaching and learning methods, to supply instruction for all, to share educational resources, and to supply alternatives for learners and instructors.

However, although technology is important for universities, and for teachers' working days, among today's teachers, not everyone has the knowledge required to teach using digital technology.

2.2. Studies Related to Teachers' Self-Efficacy and Usage of ICT in Higher Education.

These days, ICT (particularly internet) plays a crucial role in the process of integrating technology into the educational practices. In addition, self-efficacy levels of teachers play an important role on the effectiveness of teaching process. Türel (2013) examines the use of educational technology at the tertiary teaching staff and finds that all participants have a high positive computer self-efficacy conceptions, hence the overall level in some specific programs is perfect.

In their study, Yalçın, Kahraman, and Yılmaz (2011) interview 43 primary school teachers in Erzincan. The purpose of the study was to look at how tech-savvy primary school instructors were. The results show that primary school instructors are capable of using technology in the classroom.

Abodher (2014) investigates the degree of information and communication technology utilized in College of Tripoli, Libya. He reports that most of teachers have used some forms of technology and they have some knowledge about technology tools such as internet connection and computer laboratories. Also the majority of participants agree that using ICT changes their ways of teaching and learning. However, they believe that lack of sufficient training has been as the main barriers that fence to use of ICT.

Sharma and Srivastava (2019) say that teachers' recognitions of self-efficacy are arranged to their understanding of instruction that changes and creates depending on the innovation. His research has been performed to examine the effectiveness of ICT Programme on teacher self-efficacy among pre-service teacher educators and the results reveal that teachers' self-efficacy of pre-service teacher educators have effectively a positive perception about ICT Programme.

In addition, it is said that having knowledge and good skills are not enough to persuade teachers to use ICT in classrooms, unless they feel confident to help student learning through those acquired ICT knowledge and skills.

There is a study which centers on the significance of teachers' belief for making decisions to integrate ICT in their educational tasks. The study was conducted by Eldaou (2016) addresses teachers' ICT self-efficacy for educational purposes, and examines the assumed antecedents of teachers' self-efficacy. Data from 1,158 teachers at 116 Norwegian schools was analyzed. The results indicate that teachers' self-efficacy for using ICT in their teaching practice is associated

with their use of ICT in teaching and their general ICT self-efficacy. Additionally, the results show that collegial collaboration among teachers has a positive association with the use of ICT in their teaching practice. One interpretation of these findings is that general ICT self-efficacy is necessary for developing ICT self-efficacy for educational purposes and being able to use ICT in education. However, further research is required to scrutinize the relationships between these concepts.

Another research looks at the causes of instructional self-efficacy beliefs among Norwegian student instructors enrolled in a secondary school teacher training program. The strongest correlation between the student teachers' perceptions of their ability to use information and communication technology (ICT) in schools to address problems and their instructional self-efficacy, which was examined along two dimensions: (1) self-efficacy for upholding discipline and (2) self-efficacy for influencing students' use of ICT in the service of learning, was the most significant finding. Practice implications are examined. It is suggested that student instructors' digital competence is crucial for maintaining instructional self-efficacy in tech-rich classrooms.

The association between teachers' attitudes about using ICT in the classroom and their view of their own ICT self-efficacy is identified by Coban & Atasoy (2019). Two scales—the "Teachers' Self-Efficacy Perception on ICT Scale" and the "Teachers' Attitude towards ICT Usage Scale"—are employed for this aim. 42,307 teachers in all participated in this survey. The data analyses using mean, standard deviation, Pearson correlation, and linear regression. The sense of ICT self-efficacy among teachers and their attitudes towards ICT use in the classroom are shown to be significantly correlated. The results suggest that if instructors have a high degree of self-efficacy, they can successfully utilize ICT during the learning process and grow as ICT users. They can get better as well.

Another study which was conducted in Saudi Arabia (2012) features the significance of real and perceived self-efficacy inside the modern standards. The total number of participants are 325 Saudi preservice teachers from the Faculty of Education at King Abdulaziz University. Findings uncovered that the skills of participants' computing tasks are generally high levels and their perceptions of self-efficacy as well. At university, there is also an increase with teachers' computer experience and computer qualifications. These results reveal that expanding Saudi pre-service instructor get to, preparing, and introduction to computers and ICTs will contribute.

According to Chai, Hong & Teo (2009) have a study on teachers' epistemological and academic convictions and their state of mind towards ICT utilize are identified as the second-order barrier for the integration of ICT in teaching process. This research was conducted among Singaporean and Taiwanese pre-service teachers. It has been detailed that pre-service teachers' epistemological convictions are largely relativistic as well as they were decreased to believe in the useful idea of education. The findings also propose that pre-service teachers from Singapore and Taiwan have convictions that are appropriate with the instructive change effort from their personal countries. However, the pre-service teachers' attitude towards ICT use does show up to be related with their epistemological and academic convictions. To be concluded, it was advised that more efforts are required to feed more beneficial utilize of ICT to support constructivist teaching.

In 2016 Yamamoto and Yamaguchi investigate the integration of ICT in education through teachers' self-efficacy. 838 primary school teachers in Mongolia were the main source of data in this study. The relationships between three types of perceived self-efficacy (confidence, competency and satisfaction) and two education aspects, teacher training activities and practical ICT experience at school level are investigated by the pairwise relationship coefficient. The results revealed that seen impact of school-based trainings has the most grounded relationship among educator preparing exercises. It moreover finds that positive regulation attitude towards ICT coordinates instruction is imperative to teacher's self-efficacy. Based on the findings, following points are suggested to extend or keep up teacher's higher self-efficacy: school-based teacher training activities, especially related to ICT integrated education, should be given a priority; and courses to grasp the educational importance of ICT ought to be included in management level trainings.

CHAPTER III

METHODOLOGY

This study aimed to investigate Libyan ELT teachers' information and communication self-efficacy levels. To reach this aim the current study established a quantitative descriptive research design. In this section description of participants, data collection instrument, data collection procedure and data analysis procedures were discussed.

3.1. Sample of The Study

The participants of the study comprised of 200 English language teachers teaching English as a foreign language in two different colleges - Faculty of Arts and Faculty of Education. The sample was chosen randomly by the researcher at Zawia University. However, 24 of these teachers rejected to participate in the study. So, the participants of the study consisted of 176 English teachers (105 males and 71 females) as shown in the Table 3.1. below.

Table 3.1. Sample by Gender

Gender	N	%
Male	105	59.7
female	71	40.3
Total	176	100.0

Table 3.1 gives the distribution of participants in terms of their genders. Data was collected from a random sample made up of 176 respondents. Descriptive statistics of the sample showed the number of male participants 105 which represents 59.7% while the number of female participants were 71 representing the 40.3% of the total participants. In addition, Table 3.2. below shows that the convenience sample of the study were 176 EFL teachers from different fields of English.

Table 3.2. Sample by Branches

Branch	N	%
Linguistics	85	48.3
Translation	43	24.4
Literature	48	27.3
Total	176	100.0

As seen in Table 3.2. the percentage of participants working in linguistics branch was 48.3% which indicates to the majority of sample, while the minority was from translation branch (24.4%) and only 27.3% of the sample were from the field of literature.

In Table 3.3. below the distribution of the participants according to their education status is given.

Table 3.3. Sample by Education Status

Education Status	Count	Percentage
Bachelor's Degree	41	23.3%
Master's Degree	98	55.7%
Doctorate	37	21.0%
Total	176	100.0%

As seen in Table 3.3. most of the participants have master's degree (55.7%) and it is followed by bachelor's degree (23.3%) and PhD (21.0%).

Table 3.4. indicates the descriptive statistics according to age, work experience, length of using computer, length of using Internet.

Table 3.4. Descriptive Statistics for Age, Work Experience, Duration of Computer Use, Duration of Internet Use

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Age	176	25	65	38.74	10.022
Work experience	176	2	27	12.50	7.264
Duration of computer use	176	2	25	10.27	5.988
Duration of internet use	176	2	19	8.77	4.304

As it is seen in Table 3.4. the age of the participants ranges between 25-65 years. Most of the participants' work experience is more than 15 years (31.8%) which is followed by 5 or less experienced teachers (24.4%), 6-10 years of experience (22.2%) and 11-15 years of experience (21.6%) respectively. However, they have been using computers and internet with different experience levels, which range between 2 to 25 years and 2 to 19 years respectively.

3.2. Data Collection Instrument

3.2.1. Teachers' Computer Self-Efficacy Scale

In this research, data was collected through Likert-scale-type scale (Teachers' Computer Self-Efficacy Scale) which was designed for teachers to find out their levels about using different ICT tools in teaching process. It has been used before by other researchers and has been confirmed that it is a strong tool, especially, when the researchers want to investigate teachers' self-efficacy to integrate technology in educational process (Şendurur, Yildirim (2019). The scale consists of two main sections; demographic information and 35 items that show the extent of efficacy of teachers, ranging from lowest efficacy level to highest efficacy level (See Appendix Section). The questions are grouped under five categories (Use of Internet and computer support, Technical knowledge, Office programs and their applications, Classroom applications, Advance computer use) technically called factors. Items 1, 2, 3, 5, and 8 are labelled as Office programs and their applications", Items 6, 9, 10, 12, 13, and 16 are labeled as "use of internet and computer for support, the items 7, 11, 14, 15, 19, 26, 27, 28, 29 and 33 are labelled as "advance computer use, items 17, 18, 20, 21, 22, 24 and 25 are labeled as "technical knowledge" and the items, 30, 31, 32, 34, 35 and 36 are named as "classroom applications".

3.2.2. Reliability and Validity of the Scale

Before conducting the study, two experts' views were taken order to see whether or not the addressed question items of the questionnaire are clear and suitable. The experts were from ELT department and Turkish Language Education department. Also with the feedback of the supervisor, one questionnaire item (question two in demographic information part) was amended according to the target sample. The question was about education state which was written as undergraduate and postgraduate in the main version of questionnaire. However, the question was changed as bachelor, postgraduate and PHD to be appropriate to the target participants.

The scale develops by Şendurur & Yildirim (2019) with a study aiming to create a computer self-efficacy scale (CSES) to achieve teachers' computer self-efficacy beliefs in terms of technology integration. The sample of the study consisted of 110 pre-service, and 115 in-service teachers. Exploratory and confirmatory factor analyses and reliability analyses appeared to be high. Five subscales are discovered and confirmed after exploratory factor analysis. Each section has

reliability coefficients higher than .89. All the findings supported that CSES is an acceptable instrument to measure teachers' computer self-efficacy beliefs.

Also, in this study, Cronbach's Alpha has been used to test the reliability of the scale (CSES). The results are given in Table 3.5. below.

Table 3.5. Reliability of the Scale

Number of Items	Cronbach Coefficient
35	0.946

As seen in the Table 3.5. the Cronbach Coefficient for the research was found 0.946 which is more than 0.60 and considered satisfactory.

3.3. Data Collection Procedure

The brief explanation about the purpose of study was presented to voluntary participants before the questionnaire was distributed. The teachers were informed that the collected data would be used just for the current study and the findings would be kept secretly and their consent was received. The data was collected from the teachers who have been working at Zawia University English department in two different faculties (faculty of Art and faculty of Education). The questionnaire was randomly submitted both handily and by email. The data was collected during the fall term of 2020/2021 Academic Year. The data was analyzed by using Statistical Packet for Social Sciences (SPSS) package program.

3.4. Data Analysis

Data were analyzed by the analyst by using SPSS version 25 (Statistical Package for Social Sciences). In the study descriptive statistics were utilized. Before analyzing the results, lost values, if any, were inspected and it was seen that there were no lost values in collected data set. The relationship between English Language Teacher self-efficacy levels and gender, education status, age, work experience, duration of computer use, and duration of internet use was investigated using Pearson correlation coefficient.

CHAPTER IV

FINDINGS AND DISCUSSION

The target of this chapter is to explain the findings of the analysis of the data gathered by using the data collection tool Teachers Computer Self-Efficacy Scale. First findings are given under each research question of the research and are followed by discussion part based on these findings

4.1. Findings

Table 4.1. Descriptive Statistics Related to the Participants

Variable	N	Minimum	Maximum	Mean	Standard Deviation
Age	176	25	65	38.74	10.022
Work Experience	176	2	27	12.50	7.264
Duration of Computer Use	176	2	25	10.27	5.988
Duration of Internet Use	176	2	19	8.77	4.304

In the analysis of data, the demographics of the teachers who completed the survey are outlined in table 4.1. The mean age of the sample study is 38.74 years with standard deviation equals 10.022 years. The average mean of work experience equals 12.50 years with standard deviation equals 7.264 years. It is revealed that the mean length of using computer of the sample study equals 10.27 years with standard deviation equals 5.988 years whereas the mean length of using internet of the sample study equals 8.77 years with standard deviation equals 4.304 years.

Table 4.2. Computer training

Receive any training on computer	N	%
Yes	89	50.6%
No	87	49.4%

Table 4.2. it illustrates that 50.6% of the participants have received training on computer while 49.4% have not.

Table 4.3. Time of the training

Time of the training	N	%
Undergraduate study	4	4.5%
Postgraduate study	3	3.4%
In-service training	37	41.6%
Private course	44	49.4%
Other	1	1.1%
Total	89	100.0%

The table 4.3. indicates that 4.5% of the sample study have received training on computer during undergraduate study. The percentage 3.4% describes teachers have received training on computer during postgraduate study. The score participants who in-service training get 41.6% while 49.4% of the sample studying in a private course. Only 1.1% of the score sample answered through other programs.

Table 4.4. Sufficiency of the training received

Sufficiency of the training received	f	%
Yes	64	36.4%
No	112	63.6%
Total	176	100.0%

With a closer look at table 4.4 shows that 36.4% of the sample study said that education they received about computer use is sufficient, while 63.6% of the sample study reported that education they received about computer use is not sufficient.

Table 4.5. Opinions about the use of technology at school.

Opinions about the use of technology at school	N	%
Not sufficient	114	64.8%
Sufficient	62	35.2%
Total	176	100%

As presented in Table 4.5. 64.8% of the participants believe that the use of technology at school in general is not sufficient, while 35.2% believe the use of technology at school in general is sufficient.

4.1.1. The Findings Related to the Research Question 1: “What are ELT teachers’ self-efficacy levels towards Information and Communication Technologies?”

In Table 4.6. below “mean and standard deviations of EFL teachers’ responses to the overall items of self-efficacy scale towards using Information and Communication Technologies” are given.

Table 4.6. Mean and standard deviations of EFL teachers’ self-efficacy levels towards using Information and Communication Technologies (ICT)

Item No	Mean	SD	Rank	Level of self-efficacy
1	2.90	2.866	33	Low
2	6.58	2.549	5	High
3	6.39	2.868	6	High
4	2.72	2.640	34	Low
5	5.38	2.674	14	Moderate
6	5.90	2.627	12	High
7	3.72	2.799	25	Low
8	4.22	3.304	22	Low
9	4.85	2.857	16	Moderate
10	4.45	3.033	21	Low
11	6.25	2.774	8	High
12	6.04	2.345	9	High
13	7.71	1.374	4	High
14	3.65	3.180	26	Low
15	3.16	3.007	30	Low
16	4.02	2.119	24	Low
17	3.07	2.929	31	Low
18	4.60	3.182	19	Moderate
19	3.39	2.719	28	Low
20	5.99	2.501	10	High
21	4.72	2.614	18	Moderate
22	8.40	1.604	1	High
23	2.95	2.769	32	Low
24	8.12	1.928	3	High

25	3.37	2.815	29	Low
26	4.77	2.447	17	Moderate
27	5.07	2.363	15	Moderate
28	5.90	2.461	11	High
29	5.48	2.245	13	High
30	4.52	2.263	20	Low
31	4.07	2.720	23	Low
32	3.59	2.992	27	Low
33	2.55	2.640	35	Low
34	8.24	1.131	2	High
35	6.26	1.567	7	High
Over All	4.94	1.917		moderate

Table 4.6. above indicates that all the means that measure the level of EFL teachers' self-efficacy towards using information and communication technologies range between 2.55 to 8.40 meaning that the levels of EFL teachers' self-efficacy towards using information and communication technologies vary between low and high. The item 22 "Can you connect monitor, keyboard, and mouse to the case without receiving any help?" ranked as the first item with a mean =8.40 and standard deviation =1.604 which indicate that the level of EFL teachers' self-efficacy for this statement is high while item 33 "Can you analyze (such as basic statistical calculations, average, median, frequency) the records of students (attendance, grades, etc.) on computer environments?" ranked as the last with a mean=2.55 and standard deviation =2.640 which indicates that the level of EFL teachers' self-efficacy is low. In addition, it can be seen that the overall mean score is M=4.94 with standard deviation SD=1.917 which indicate that the level of EFL teachers' self-efficacy towards using Information and Communication Technologies in general is moderate.

4.2.2. The Findings Related to the Sub-Dimensions of Research Question 1.

The data related to the first research question of the study "What are ELT teachers' self-efficacy levels towards Information and Communication Technologies?" was also analyzed according to the five major categories (5 sub-dimensions) of using ICT (Use of Internet and computer support, Technical knowledge, Office programs and their applications, Classroom applications, Advance computer use). In the tables below results related to each sub-dimension will be given. The findings related to the sub-dimension "Office Programs and Their Applications" are given in Table 4.7. below.

Table 4.7. Findings Related to the Sub-Dimension ‘Office Programs and Their Applications’

No	Item	Mean	SD	Rank	Level of self-efficacy
1	1	2.90	2.866	5	Low
2	2	6.58	2.549	1	High
3	3	6.39	2.868	2	High
4	4	2.72	2.640	6	Low
5	5	5.38	2.674	3	Moderate
6	8	4.22	3.304	4	Low
Over All		5.09	2.446		Moderate

When table 4.7. is examined, it is seen that all the means that measure the level of EFL teachers’ self-efficacy towards using ICT in terms of “office programs and their applications” ranged from 2.72 to 6.58 which indicate that the level of EFL teachers’ self-efficacy towards using office programs and their applications is graded from low to high. Item 2: “How effective can you use word processor programs (ex. MS Word)?” has a mean score of M=6.58 and standard deviation =2.549 which indicate that the level of EFL teachers’ self-efficacy towards using office programs and their applications is high. Item 4: “How effective can you use database programs (ex. MS Access)?” ranked as “low” with a mean score of M=2.72 and standard deviation SD=2.640. The overall mean of this sub-dimension is M=5.09 with a SD 2.446 which shows that the level of EFL teachers’ self-efficacy towards using ICT in terms of office programs and their applications is “moderate”. The findings related to the sub-dimension “Use of Internet and Computer for Support” are given in Table 4.8. below.

Table 4.8. Findings Related to the Sub-Dimension “Use of Internet and Computer for Support”.

No	Item	Mean	SD	Rank	Level of self-efficacy
1	6	5.90	2.627	3	High
2	9	4.85	2.857	4	Moderate
3	10	4.45	3.033	5	Low
4	12	6.04	2.345	2	High
5	13	7.71	1.374	1	High
6	16	4.02	2.119	6	Low
Over All		5.50	2.038		High

As it is shown in Table 4.8. the measurements of mean to see the level of EFL teachers' self-efficacy in terms of "using internet and computer for support" range from 4.02 to 7.71. Item 13: "Can you use search engines (Google, Yahoo, etc.)?" ranked as the first with the $M= 7.71$ and $SD= 1.374$ which indicates that the level of EFL teachers' self-efficacy is high. However, Item 16: "Can you use communication opportunities provided by computer and internet?" has the lowest rank with $M= 4.02$ and $SD= 2.119$, which means teachers' level is low. The overall mean of this sub-dimension is $M=5.50$ with a standard deviation of $SD=2.038$ which shows that the level of EFL teachers' self-efficacy towards using ICT in terms of using internet and computer for support is "high". The findings related to the sub-dimension "Advance computer use" are given in Table 4.9. below.

Table 4.9. Findings Related to the third Sub-Dimension "Advance computer use".

No	Item	Mean	SD	Rank	Level of self-efficacy
1	7	3.72	2.799	6	Low
2	11	6.25	2.774	1	High
3	14	3.65	3.180	7	Low
4	15	3.16	3.007	9	Low
5	19	3.39	2.719	8	Low
6	26	4.77	2.447	5	Moderate
7	27	5.07	2.363	4	Moderate
8	28	5.90	2.461	2	High
9	29	5.48	2.245	3	High
10	33	2.55	2.640	10	Low
Over All		4.39	2.170		Low

Table 4.9. shows the mean levels of EFL teachers' self-efficacy towards using ICT in terms of "advance computer use" which range from 2.55 to 6.25. Item 11: "Can you design a web page to use either in class or out of class activities?" is labelled as high with $M= 6.25$ and $SD= 2.774$. On the other hand, item:33 "Can you analyze (such as basic statistical calculations, average, median, frequency) the records of students (attendance, grades, etc.) on computer environments?" ranked as "low" with $M= 2.55$ and $SD= 2.640$. The overall mean of this sub-dimension is $M=4.39$ with a standard deviation of $SD=2.170$ and this indicates that the level of EFL teachers' self-

efficacy towards using ICT in terms of advance computer use is “low”. The findings related to the sub-dimension “Technical Knowledge” are given in Table 4.10. below.

Table 4.10. Findings Related to the Sub-Dimension “Technical Knowledge”.

No	Item	Mean	SD	Rank	Level of self-efficacy
1	17	3.07	2.929	7	Low
2	18	4.60	3.182	5	Moderate
3	20	5.99	2.501	3	High
4	21	4.72	2.614	4	Moderate
5	22	8.40	1.604	1	High
6	23	2.95	2.769	8	Low
7	24	8.12	1.928	2	High
8	25	3.37	2.815	6	Low
Over All		5.47	1.744		High

As it is presented in the Table 4.10. the scores of all the means in terms of “technical knowledge” range from M= 2.95 to M=8.40. Based on these scores, the level of EFL teachers’ self-efficacy towards technical knowledge ranges from low to high. The item 22: “Can you connect monitor, keyboard, and mouse of the case without receiving any help?” has the highest mean M= 8.40 with a SD= 1.604 and ranked as “high”. On the other hand, the item 23: “Can you solve technical problems (such as operational problems of computers, projectors, or interactive board) faced in the classroom?” has the lowest mean score M= 2.95 with SD= 2.769 and ranked as “low”. The overall mean score of this sub-dimension is M=5.47 with a SD=1.744 which indicates that the level of EFL teachers’ self-efficacy towards using ICT in terms of technical knowledge in is “high”. The findings related to the sub-dimension “Classroom Applications” are given in Table 4.11. below.

Table 4.11. Findings Regarding the Sub-Dimension “Classroom Applications.

No	Item	Mean	SD	Rank	Level of self-efficacy
1	30	4.52	2.263	3	Low
2	31	4.07	2.720	4	Low
3	32	3.59	2.992	5	Low
4	34	8.24	1.131	1	High
5	35	6.26	1.567	2	High
Over All		5.33	1.767		Moderate

The mean scores of the level of EFL teachers' self-efficacy towards using ICT in terms of "classroom applications" in Table 4.11. are between $M=3.59$ and $M=8.24$ and ranges from low to high. The item 34: "Can you benefit enough from the internet while preparing the course materials?" has the highest mean score $M=8.24$ with a $SD=1.131$ which embodies the level as "high". However, item 32: "Can you guide students about which programs or software to be used during technology-based projects?" has "low" level of self-efficacy with mean score of $M=3.59$ and standard deviation = 2.992. The overall mean of this sub-dimension is $M=5.33$ with standard deviation $SD=1.767$. It shows that the level of EFL teachers' self-efficacy towards using Information and Communication Technologies in terms of classroom applications in general is "moderate".

4.1.2. The Findings Related to the Research Question 2: "Is there a relation between their self-efficacy levels and demographic traits?"

The relationship between English Language Teacher self-efficacy levels and gender, education status, age, work experience, duration of computer uses and duration of internet use was investigated using Pearson correlation coefficient, results of which are given in Table 4.7. below.

Table 4.12. Pearson Correlation Coefficient Values

Variable	R-Self-Efficacy
Education status	0.543
Age	0.581
Work Experience	0.567
Duration of computer use	0.621
Duration of internet use	0.689

The results of Pearson Correlation Coefficient analysis in Table 4.12. indicate that teachers' common ICT self-efficacy has a significant positive correlation with their education status ($r=0.543$, $p\text{-value}<0.001$), age ($r=0.581$, $p\text{-value}<0.001$), work experience ($r=0.567$, $p\text{-value}<0.001$), duration of computer use ($r=0.621$ and $p\text{-value}<0.001$) as well as teachers' duration of internet use ($r=0.689$, $p\text{-value}<0.001$).

Table 4.13. ICT Self-Efficacy Based on Age Groups.

Age groups	N	%
25-34	68	38.6%
35-44	64	36.4%
45-55	25	14.2%
55 and more	19	10.8%
Total	176	100.0%

Table 4.13 above illustrates that the age group 25-34 has the highest response (38.6 %) which is a young generation while the number of sample goes down 19 with 10.8% as the age decreases. The findings indicated that teachers' self-efficacy increases with the age. That is to say, teachers' ability to use ICT increases as they grow older as seen in figure 4.1.

Figure 4.1. Self-Efficacy and Age Correlation

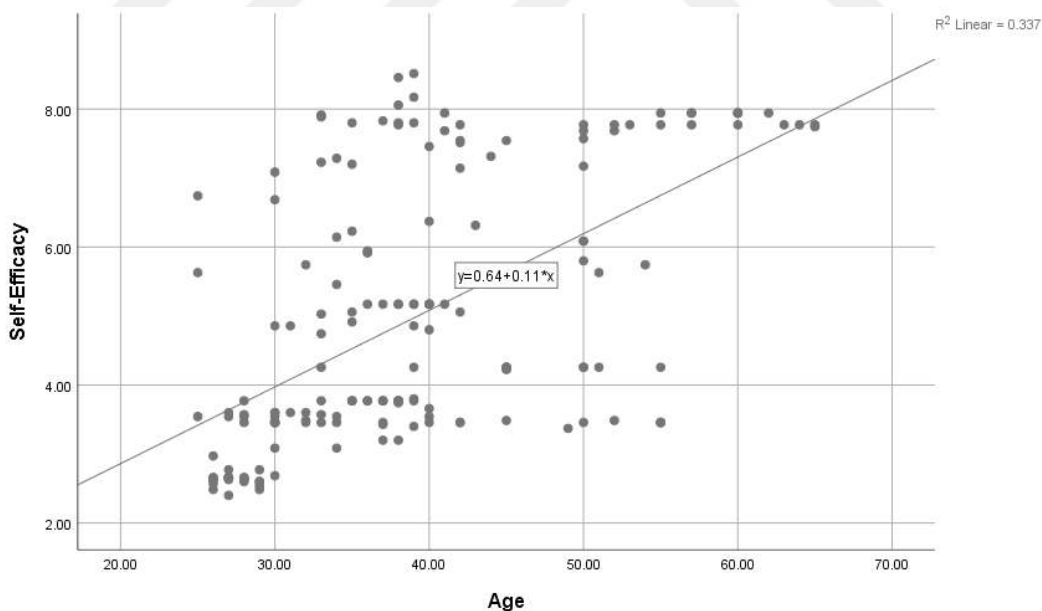


Table 4.14. Distributed Sample by Work Experience.

Work experience	N	%
5 or less	43	24.4%
6-10	39	22.2%
11-15	38	21.6%
More than 15	56	31.8%
Total	176	100.0%

Considering teaching experience years, the rates of teachers with 0-5 and 15 and more year experience are quite high (24.4% and 31.8%) whereas the duration of teachers with 6-14-year experience is 22.2% and 21.6% respectively. Although the scores are close to each other, teachers' self-efficacy affects by their period of teaching English and indicates to a positive correlation.

Figure 4.2. Sample by Work Experience.

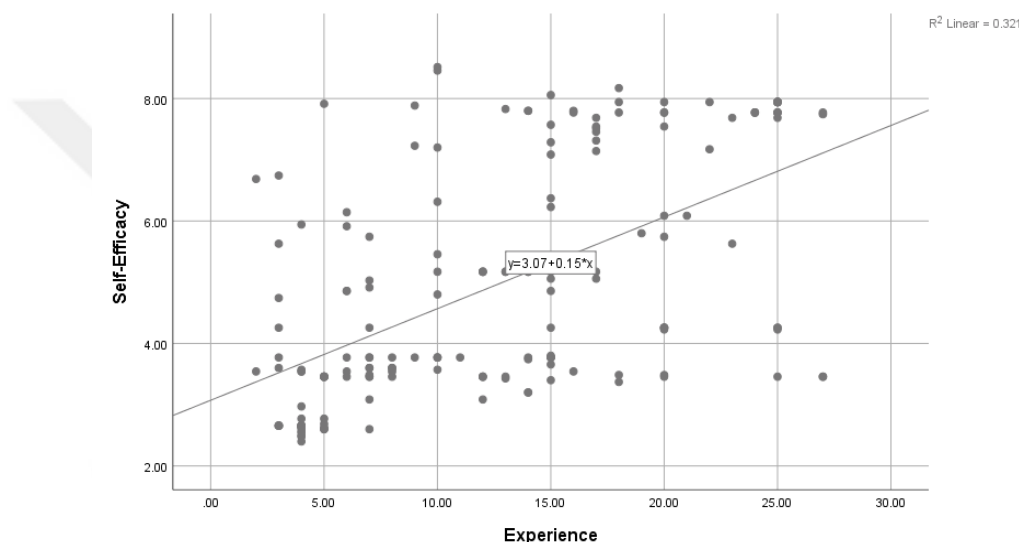


Table 4.15. Distributed sample by computer use.

Duration of computer use	N	%
5 or less	50	28.4%
6-10	56	31.8%
11-15	43	24.4%
More than 15	27	15.3%
Total	176	100.0%

It is clear that the highest proportion (31.8%) which refers to the teachers who have 6-10 year using computers in teaching process. The average of teachers who have been using computers from 11 to 15 years is 24.4% whilst 15.3% of teachers who have been using computers more than 15 years. It explains that statistically significant correlations related to teachers' self-efficacy and using computers in daily teaching process.

Figure 4.3. The Duration Computer Use

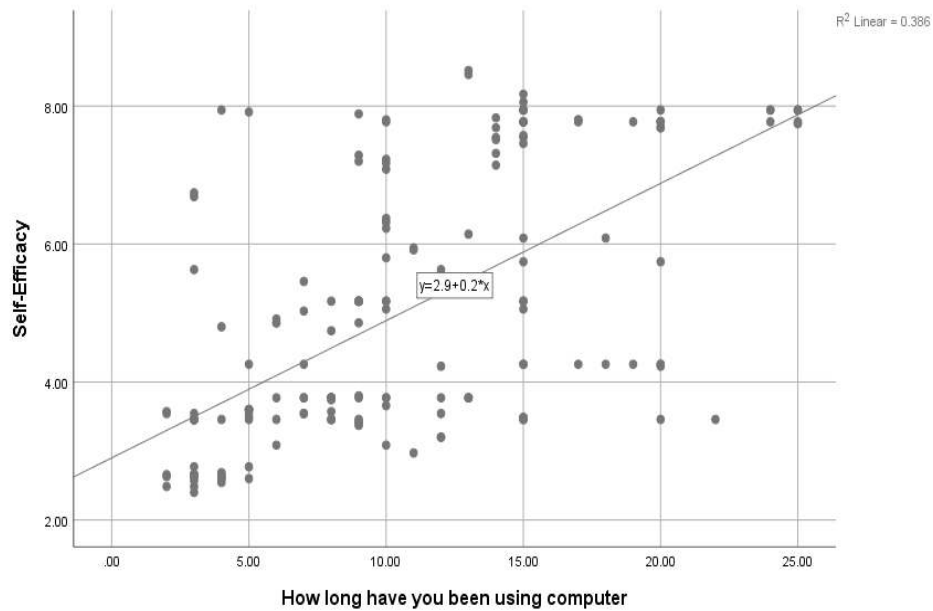
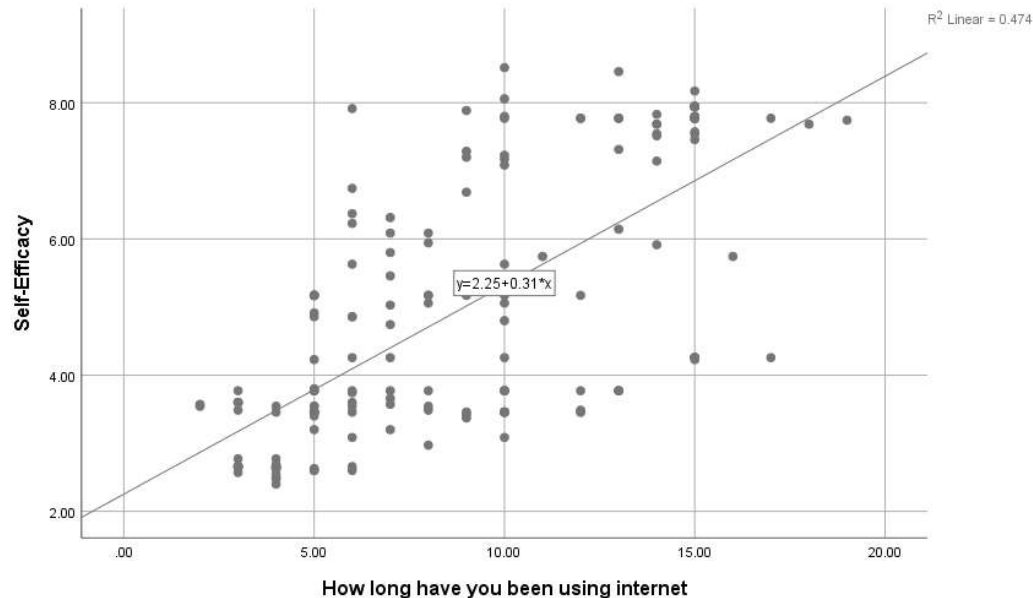


Table 4.16. Distributed Sample by Internet Use

internet use	N	%
5 or less	56	31.8%
6-10	66	37.5%
11-15	49	27.8%
16-20	5	2.8%
Total	176	100.0%

As it can be seen in Table 4.16. above, the analysis of the duration of using internet revealed that the high percentage (37.5%) of teachers who have been able to use the internet over 6 and 10 years. The second score of percentage is 31.8% of teachers using internet less than five years, following by teachers who have 11-15 years of experience with the percentage of 27.8%. The last rate of portion is 2.8% for 16-20 years of teachers' usage internet.

Figure 4.4. The Duration of Internet Use



4.2. Discussion

This study was conducted to evaluate EFL teachers' self-efficacy levels towards using information and communication technology (ICT) in teaching process and to check whether there is a relation between their self-efficacy levels and demographic variables, such as gender, age, teaching experience, using of computers and internet and fields of work. The findings are believed to contribute to the practical information for approaching instructors and help the teachers plan programs to better meet developed teaching process. According to these circumstances, teachers have a central part in integration of ICT in their classes. Hence, improving teachers' abilities and ICT skills are important to an effective usage of ICT in school settings. Teachers bring to the classroom a predetermined set of society pedagogies and instructing habitus that must be tended to in order to effectively coordinated innovation into the educational programs (Belland, 2009; Hammonds et al., 2013).

Generally, teachers with a high level of self-efficacy are required within the instructing profession, since they can have a positive effect in students' learning level as they contribute to quality instruction. The findings of the first question in the present study reported that the teachers in the two colleges have moderate level self-efficacy towards using ICT in education. The data additionally showed that even though teachers seem to have good abilities to integrate ICT in

classes, they still need to develop educational policies that emphasize contributing to the professional development of teachers in some computer techniques. In other words, English foreign language teachers are not able to incorporate effectively ICT in their daily teaching process. In a similar a study Sarıçoban, (2013) concluded that EFL teachers should become familiar with digital technologies for effective classroom teaching. According to that, we might reasonably explain why most answers to the questions regarding the use of technology at universities in general is not sufficient and teachers' education have received about computer use is not sufficient as well. These results support the concept of Bandura (1977) that self-efficacy is a key variable in training.

Findings indicated that the self-efficacy of a teacher is positively related to classroom technology use of teachers. It could be alleged that if teachers' self-efficacy levels are higher, instructors might utilize ICT within the teaching process effectively, and they may moreover improve themselves in utilizing ICT. This finding is in line with earlier studies (Al-Zahrani & Robertson, 2012; Yusuf, 2011) if teachers have high self-efficacy, they need to utilize ICT and they are able to overcome any problems they face with ICT.

This study also aimed to answer the relations self-efficacy levels of teachers with their demographic traits. No significant correlation was found between gender and computer self-efficacy. This finding suggested that The gender of teachers participated in a questionnaire did not play an important role in their self-efficacy scores. This refers to that most of teachers both male and female are educated and able to integrate ICT adequately, and control classroom technique with the use of ICT if they receive a great support from the government. This interpretation is in a line with a study by Sarfo et al. (2017); Siddiq and Scherer (2016). They did not identify the effect of gender interaction on teachers' self-efficacy in the use of ICT, hence their studies do support the findings of current study.

Regarding teachers 'age, a significant relation between age and computer self-efficacy was found. In other words, as the EFL teachers get older they also get higher self-efficacy levels of technology use. Young generation started with lower self-efficacy compared with elders. Young teachers, age group 25-35 appeared to have low self-efficacy for using. This finding is in line with a study conducted by Henry (2008) to examine the relationship of age, gender, and identity style on the level of technology usage by professors at the university level. Results of which indicated

that older faculty teachers had higher levels of technology implementation than their younger counterparts. In this context, it should be noted that young teachers use ICT in teaching for a shorter period of time than their elder counterparts and they tend to have a more negative ability towards using ICT in teaching process. Moreover, this interpretation proves that there is a meaningful relation between teachers' experience and self-efficacy in terms of integration of ICT. Teachers who have more teaching experience, have more abilities to use technology. Bailey and Murcia (1979), highlight the significance of preparing and practice in arrange to be a successful ESL instructor. They claim that after finishing out their college preparing, instructors who have just begun their job may come up with need of practical involvement, despite strong theoretical preparation. This finding implies that teachers' regular practicing of innovative teaching strategies is necessary to have a good work experience which enables them to use ICT confidently and effectively. According to Shivelya and Yerrickb (2014) real classrooms experiences that empower instructors to pick up the confidence, experience, and competence are fundamental.

Another important result is that teachers' self-efficacy levels increase a slight amount as the years of experience increases. More precisely, As the teachers have become more experienced, the proficiency of using ICT increase as well. Therefore, self-efficacy may change over the course of a career due to life occasions and career challenges. As suggested by Allison, Lida and Kerry (2019) that interview participants express that instructing work experience makes a progression their innovation aptitudes and expands their self-efficacy towards utilizing innovation within the classroom. These results are also supported by the research by successful experiences with directions innovation as a preservice teacher leads to positive efficacy (Flores, (2018); Kramarski, & Tova, (2015)

The findings of the study based on the data demonstrate that education status has an important role in teachers' computer self-efficacy. Teachers holding higher degrees have higher computer self-efficacy levels. Referring to the research findings by Dean (1993) states that when instructors begin their profession, they bring with them the knowledge, they procure amid their educator instruction programs. However, this research also indicated that the language teachers, especially new beginners (Bachelors) need more practice on using ICT to improve their abilities and level of self-efficacy.

In addition, the results also yielded a positive relation between the years of using computer, internet and self-efficacy levels of teachers. The period of using computers and internet is important for teachers to determine the training needs for technology use and to provide necessary help for them. In this respect, it is critical to consider that classrooms ought to be equipped with technology to extend the ICT proficiencies of instructors. In a similar bath, these results are also supported by the research by Baek et al (2008), and Russell et al (2007) that instructors with less instructing involvement is less likely to utilize ICT in their classes.



CHAPTER V

CONCLUSION AND RECOMMENDATIONS

5.1. Conclusion

The broad usage of information and communication technologies has brought expanded changes to teaching and learning at all levels of higher education sections and leading to quality improvements. all over the world, most universities, conventional shapes of educating and learning are progressively being changed over to online and virtual situations. However, within the era of ICT, it'll be exceptionally troublesome for Libya to cross the advanced teaching norms, if concerted government efforts are not made to advance ICT instruction. Simply, there should be specific strategies for teachers to develop competencies for the successful instructional use of ICT in education. In this manner, the think about of teachers' self-efficacy contributes a lot to the usage of ICT plans since instructors are unequivocally impacted by new innovations. In other words, those teachers who have a strong belief in their self-efficacy make use of ICT tools more frequently in their classes. ELT teachers should, therefore, be regularly familiarized with technologies based on the computer and should participate in such practices which help them acquire good practical knowledge on how new technology is used in order to have high self- efficacy. That is why Sheingold (1991) believes that embracing innovation to the instructive framework is considered a troublesome since of human users instead of since of the innovation itself. Briefly, in this way ICT indicates to the integration of computing innovation and communication. It permits us to get information and to communicate with each other or to have an impact on the environment utilizing electronic or advanced equipment. Instructors must graduate arranged to assess, select, and coordinated innovation into their day by day instruction. Educate of higher instruction must join these openings into arrangement programs in arrange to satisfactorily prepare modern instructors to be able to do so.

Overall, results showed that teacher's traits; gender and teaching experience as well as their years of instructing teaching strategies using computers and internet are the most sources of determines teachers' self-efficacy level. Interestingly, samples in this study had a decently moderate efficacy rate on their ability to use technology for teaching.

Generally, the results are considered positive since this study supports that how teachers' self-efficacy level effects teachers' abilities in using ICT in teaching and learning. Self-efficacy is a crucial variable to determine teachers' ICT ability and performance. One interpretation of the findings' study by Hatlevik & Hatlevik (2018) is that general ICT self-efficacy is essential for creating ICT self-efficacy for instructive purposes and being able to utilize ICT in instruction.

5.2. Recommendations

The most important recommendation for further research is to supply a comparable study with a larger group. To have a better improved understanding this computer self-efficacy instrument, researchers may conduct another study with more different target populations, such as Pre-service teachers or students from different universities. The data for this study collected only by one questionnaire. However, researchers may investigate their future studies with different instruments such as interviews or observations. In addition, there is a need to have more detailed information and to identify the level of teachers' self-efficacy towards ICT integration during the ICT in education, so a qualitative study may be conducted to investigate whether EFL teachers' self-efficacy and technology use are related.

Another major point to consider is that training on the use of ICT ought to be an obligatory course in all educator preparation institutions. Educator preparation ought to not be based on preparing for only "Computer Education" but also ought to get ready instructors for utilizing innovations to develop, speak to and share information in genuine life authentic settings. Lastly, Sufficient facilities and resources should be provided to teachers to practices the ICTs in teaching process of all higher education.

For future research, it is also advised that empirical study is important to make more understanding and to search the relationship amongst experience and teacher's self-efficacy. Also to enhance teacher work experience, a study should be conducted to determine the impact of experience on teachers' ICT self-efficacy. It can be more accessible to both faculties member's teachers who have been working for years and teachers who just begin their job, including some different exercises activities with various types of ICT tools and practices promoting teaching.

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APPENDICES

Appendix 1.1. Teachers' Computer Self-Efficacy Scale

Dear, participant,

The information collected from this “Teachers' Computer Self-Efficacy scale” is being used for scientific purposes and kept confidential. Filling the statements in the study completely and sincerely is important for the research to reach consistent and reliable results.

I thank you in advance for your contribution and wish you success in your work.

Manal Zaroog

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Demographic Information

1. Gender : (1) Female (2) Male
2. Education Status: (1) Bachelor (2) Master's Degrees
(3) Doctoral Degree
3. Branch:
4. Age :
5. Work Experience:
6. How long have you been using computer:
7. How long have you been using Internet :
8. Have you received any (1) Yes (2) No
training on computer use? :
9. If yes, where did you receive the training:
(1) (2) (3) In-service (4) private (5)
undergraduate Postgraduate training course Other:.....
study study
10. Do you find the education (1) Yes (2) No
you received about computer
use sufficient?
11. You can write your further opinions related to the use of technology (sufficient or not) at schools in general below.

No	Item	<lowest efficacy				5	highest efficacy>			
		1	2	3	4		6	7	8	9
1.	How effective can you use spreadsheet programs (ex. MS Excel)?	1	2	3	4	5	6	7	8	9
2.	How effective can you use word processor programs (ex. MS Word)?	1	2	3	4	5	6	7	8	9
3.	How effective can you use presentation programs (ex. MS PowerPoint)?	1	2	3	4	5	6	7	8	9
4.	How effective can you use database programs (ex. MS Access)?	1	2	3	4	5	6	7	8	9
5.	Can you prepare course materials with the use of computer?	1	2	3	4	5	6	7	8	9
6.	Can you benefit from computers to support your instruction?	1	2	3	4	5	6	7	8	9
7.	Can you use new educational software without receiving any help?	1	2	3	4	5	6	7	8	9
8.	Can you archive students' records (attendance, grades, etc.) on the computer environment?	1	2	3	4	5	6	7	8	9
9.	Can you benefit from the computer to its maximum whenever the lesson flow is appropriate?	1	2	3	4	5	6	7	8	9
10.	Can you make use of discussion platforms (forums, e-mail groups, etc.) for educational purposes?	1	2	3	4	5	6	7	8	9
11.	Can you design a web page to use either in class or out of class activities?	1	2	3	4	5	6	7	8	9
12.	Can you distinguish the useful information within a group of Internet resources?	1	2	3	4	5	6	7	8	9
13.	Can you use search engines (Google, Yahoo, etc.) efficiently?	1	2	3	4	5	6	7	8	9
14.	Can you plan technology-based projects or homework effectively?	1	2	3	4	5	6	7	8	9
15.	Can you explain properties of a computer's physical parts?	1	2	3	4	5	6	7	8	9
16.	Can you use communication opportunities provided by computer and Internet?	1	2	3	4	5	6	7	8	9
17.	Can you use different operating systems (Windows, MacOS, etc...) effectively?	1	2	3	4	5	6	7	8	9
18.	Can you give lectures through the effective use of projector?	1	2	3	4	5	6	7	8	9
19.	Can you find the source of the computer related problems?	1	2	3	4	5	6	7	8	9
20.	Can you use such tools as printer and scanner to prepare your course materials effectively?	1	2	3	4	5	6	7	8	9
21.	Can you solve basic problems of printer, scanner, and so forth (such as paper jam, cable connection loss)?	1	2	3	4	5	6	7	8	9
22.	Can you connect monitor, keyboard, and mouse to the case without receiving any help?	1	2	3	4	5	6	7	8	9
23.	Can you solve technical problems (such as operational problems of computers, projector, or interactive board) faced in the classroom?	1	2	3	4	5	6	7	8	9
24.	Can you understand the computer related technical terms (such as formatting, copy-paste)?	1	2	3	4	5	6	7	8	9
25.	Can you develop educational applications that will help instruction?	1	2	3	4	5	6	7	8	9
26.	Can you benefit from the different features of computers in different situations?	1	2	3	4	5	6	7	8	9
27.	Can you follow the educational technology advances in your subject area?	1	2	3	4	5	6	7	8	9
28.	Can you make use of visual design methods while preparing materials on computer?	1	2	3	4	5	6	7	8	9
29.	Can you distinguish the conditions that are likely to contribute your lessons?	1	2	3	4	5	6	7	8	9
30.	Can you help students having trouble with using the computers in your class?	1	2	3	4	5	6	7	8	9
31.	Can you guide students during the computer-based activities?	1	2	3	4	5	6	7	8	9
32.	Can you guide students about which programs or software to be used during technology-based projects?	1	2	3	4	5	6	7	8	9

33. Can you analyze (such as basic statistical calculations, average, median, frequency) the records of students (attendance, grades, etc.) on computer environments?	1	2	3	4	5	6	7	8	9
34. Can you benefit enough from the Internet while preparing the course materials?	1	2	3	4	5	6	7	8	9
35. Can you practice the available computer-aided applications defined in the curriculum?	1	2	3	4	5	6	7	8	9

