CHAPTER ONE

THE RESEARCH PROBLEM

1.1   Introduction and Problem Background

Since the beginning of the twentieth century, Information Communication Technology (ICT) utilization and integration has globally dominated education, and has been regarded as a prerequisite for future groundwork in modern societies. However, the use of technological tools in the teaching process is a controversial issue that underlies various arguments. This is because the integration of ICT tools in the teaching practices suggests a crucial change in teaching. Without which no development in the educational process occurs.

Basically, the change resulting from the utilization and integration of ICT tools in teaching requires, among other things, new knowledge and competencies that should be mastered by English language teachers to innovate their ways of teaching. As the United Nations Educational, Scientific and Cultural Organization (UNESCO, 2002) puts it "the teacher's mastery of the new skills and literacies in a new pedagogical framework is the key to successful deployment of the new media in language learning and teaching." Moreover, the growing global presence of communication technologies in the learning- teaching environment has required evolution in thinking about teaching the English language, particularly since there has been a progressive alignment between technological tools and language teaching for a long time. Technological tools have contributed as teaching tools in second language classrooms as stated by Kenning (2007).

Many researchers such as Laborda & Royo (2007) and Tinio (2002) advocate the idea of using ICT in teaching languages because of the facilitating role technological tools play whether in assimilating knowledge or enhancing the educational systems particularly in developing countries. Rozgiene, Medvedeva & Strakovă (2008) argue that due to the intrinsic features of language itself, both as

a means of communication and an object of acquisition, teaching languages requires, among other things, in-depth knowledge of linguistics, communication and pedagogy. Consequently, if English language teachers plan to use one or another form of ICT in teaching English, they need to get some basic idea about what new technologies offer, in addition, teachers also need to develop additional technological skills.

However, studies have shown that ICT adoption in the teaching process is not an easy task especially in developing countries (Thowfeek & Hussin, 2008). According to Pelgrum (2001), obsession with incorporating ICT tools in schools has often taken priority over tackling the impediments hindering this incorporation. Researchers agree that despite the positive effects and the quality ICT adoption adds to teaching (Goktas, Yildirim & Yildirim, 2009), obstacles of different kinds take place when attempting to integrate ICT in the teaching practices, specifically in the classroom (Becta, 2003; Bingimlas, 2009; Buckenmeyer, 2008; Ertmer, 1999; Pelgrum, 2001; Samuel & Abu Bakar, 2006; Wee & Abu Bakar, 2006). To illustrate, some researchers propose different classifications to these obstacles as it appears below:

Classification of Obstacles

Although research has shown that ICT can be integrated into the teaching practices to support teaching and enhance students' achievement (Mostert& Quinn2009), many obstacles have often stopped teachers from using ICT effectively in their teaching practices. Diverse sets of taxonomies and classifications of obstacles that hinder teachers from integrating ICTs in their teaching practices have been used by researchers such as Becta, 2003; Bingimlas, 2009; Ertmer, 1999; Pelgrum, 2001; & Rogers, 2000.

To elaborate, Ertmer (1999) classifies these obstacles into first- order (external) obstacles that deal with time, access, support, resources and training obstacles; and second- order (internal) obstacles that deal with attitudes and beliefs. Rogers

(2000), classifies them into internal and external obstacles. He considers those caused by teachers because of their negative perceptions and lack of competencies as internal obstacles, and those imposed on teachers from the surrounding environment as external obstacles. Pelgrum (2001) divides them into material and non- material obstacles; the British Educational Communications and Technology Agency (Becta, 2003) classifies the obstacles to ICT adoption as Teacher-level obstacles and School-level barriers; Bingimlas (2009) classifies them in terms of accessibility (availability), competence and confidence.

It is worth noting that despite the different classifications of the obstacles to ICT utilization and integration in different countries, studying the obstacles encountered by Palestinian English language teachers in their teaching practices is of paramount importance. In the current study, the researcher chooses to study external obstacles related to availability, accessibility, and competence because she believes that if these obstacles are overcome, teachers will gain the confidence to start experimenting and integrating ICT tools in their teaching practices. This in turn will affect the quality of teaching on the one hand, and add to teachers' professional development on the other hand.

1.2 ICT Context in Palestinian Public Schools

Notwithstanding the augmented deliberation of the Ministry of Education & Higher Education on integrating ICT in education and primarily in teaching English (MoHE, 2008), it is surprising that so little research has actually been conducted on using ICT tools in the teaching process, whether inside or outside the classroom, especially from the perspectives of English language teachers in Palestine. ICT research in the Palestinian educational setting is especially scarce and mainly focuses on the attitudes of teachers of English as a Foreign Language (EFL) in Palestinian schools towards the use the computer or the internet in teaching English as in Al-Sharif (2003) & Kabilan & Rajab (2010). However, the integration of ICT tools by English language teachers and what really stops them

from practically adopting ICT tools in their teaching practices require careful investigation.

It is noticeable that the use of ICT tools is still in its formative stages in a developing occupied country like Palestine. According to the Education Development Strategic Plan (2008-2012: 49), part of the commitment of the Ministry of Education and Higher Education (MoHE) in Palestine is the utilization and integration of ICT in the education process. The Ministry of Education & Higher Education envisions "the expansion of the utilization of information and communication technology in education at all levels" as a facet of the Palestinian Reform and Development Plan (PRDP) of education. The MoHE's policy draws heavily upon accomplishing quality education and equipping teachers with the necessary skills and knowledge to meet the challenge of rapid technological production in this competitive world through the teacher professional plan (MoHE, 2008: 53).

In line with the MoHE's educational policies, some initiatives and projects in the fields of e-learning and ICT for education have been launched in Palestine in collaboration with foreign countries, which are all guided by the Palestinian Education Initiative (PEI, 2005), Towards Electronic Palestine (TEP). The main aim of the initiative is to transform teaching at schools into an information society (United Nations, 2007). To illustrate, some of the initiatives that have been launched are: Support to the Palestinian Education System (SPEP) in 2005 in collaboration with the Italian government (UNDP, 2005). Model School Net (MSN), a USAID- funded initiative, which has been set by the AmidEast institution in 2007 and whose main focus is to develop a school improvement network that will serve as a model for basic education in Palestine according to America- MidEast Educational & Training Services (AMIDEAST, 2011) and was implemented in (40) public school only in four districts in Palestine; E-learning Curriculum in Palestinian Primary and Secondary Education in collaboration with the Belgian government in 2009 (PZA, 2010).

However, Shraim & Khlaif (2010) state that the previous projects have only been implemented successfully in universities and private schools, whereas such projects were implemented in very few numbers of public schools such as the (MSN) and the rest of schools are still waiting to be connected to the internet, or were halted because of political or financial issues. This situation was previously elaborated by Wahbeh (2006) who found that only (21%) of public Palestinian schools were connected to the internet and (40%) of the schools house computer labs.

Still, teachers are required to utilize and integrate ICT tools in their teaching practice in line with the Teacher Development Plan (TDP, 2008-2012) as part of their qualifications. However, this provokes the query: are such requirements supported by Leadership with enough infrastructure facilities, training, finance and technical support. Based on the researcher's experience as a teacher for five years, and through asking other English language teachers from different schools during the General Tawjihi exam, teachers state that the support they receive confines to receiving official documents every year asking them to attend a generic optional course, International Computer Driving License (ICDL), for those who do not know how to use computers, and hence teachers should not complain from lack of knowledge or skills.

Therefore, the scarcity of information on the use and integration of ICT by English language teachers, and the obstacles that stop them from successfully utilizing and integrating ICT tools in their teaching practice are the main stimuli for the current study.

1.3 Statement of the Problem

This study is confined to investigating the current obstacles to utilizing and integrating Information Communication Technology (ICT) in Palestinian Public schools in the tenth, eleventh and twelfth grades from English language teachers perspectives in the districts of Ramallah & Al-Bireh, Hebron and Tulkarm.

1.4 Research Objectives

The objectives of the study are:

1. To find out the extent to which English language teachers of the 10th, 11th, & 12th grades use ICT tools in their teaching practice.

2. To find out the obstacles that prevent English Language teachers in the 10th, 11th, & 12th grades in Palestinian Public schools from utilizing and integrating ICT tools in their teaching practice.

3. To study some predictors that may affect the extent to which teachers utilize and integrate ICT tools in their teaching practice.

1.5 Research Questions

This study tries to answer the following questions:

1. To what extent do English language teachers of the 10th, 11th, and 12th grades use ICT tools in their teaching practice?

2. What are the obstacles to utilizing and integrating ICT tools in the teaching practice in Palestinian public schools from English language teachers' perspectives?

3. Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their responses to the obstacles' presence due to gender, expertise (practical experience), and educational qualifications (degree)?

4. Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their use of ICT tools according to:

a: the availability and accessibility of ICT resources in their schools,

b: the number of training courses they received pre- service i.e. at the university,

c: the number of ICT training courses they attended in- service i.e. provided by the Ministry of Education?

1.6 Research Hypotheses

Since the third question lends itself more easily to statistical manipulation through forming hypotheses, three null hypotheses are formed to answer it statistically. These are:

1. There are no statistically significant differences at ($\alpha \leq 0.05$) in the means of teachers' responses to the obstacles' presence due to teachers' gender.

2. There are no statistically significant differences at ($\alpha \leq 0.05$) in the means of teachers' responses to the obstacles' presence due to teachers' practical experience (expertise).

3. There are no statistically significant differences at ($\alpha \leq 0.05$) in the means of teachers' responses to the obstacles' presence due to teachers' educational qualifications (degree).

1.7 Purpose Statement

The purpose of using both quantitative and qualitative methodologies in the current study is to first gather information about the real situation of ICT utilization and integration in Palestinian public schools, the participants and the obstacles towards ICT utilization and integration from the wider number of population through using a questionnaire. Then, to elaborate on the information gathered, face- to- face interview is developed based on the questionnaire domains to gain in depth understanding about ICT integration in the teaching practice of the English language teachers and reveal any aspects that the questionnaire might miss.

1.8 Significance of the Study

The importance of this study stems from the importance given to ICT utilization and integration in education nationally with a growing focus on schools. Since many attempts and projects have not thoroughly succeeded in adopting ICT in teaching, investigating the real circumstances of ICT integration in teaching English in Palestinian Public Schools, and studying the obstacles that contribute to the incomplete success to the utilization and integration of ICT in teaching English as a main means of communication may assist English language teachers to overcome these obstacles, and be successful adopters of ICT in their teaching practice. Likewise, teachers may gain insights of what are the best enablers of integrating ICTs in their teaching practice.

Moreover, the study derives its importance from its attempt to answer the study questions whose results may be beneficial to policy and decision makers to constructively support English language teachers, and at the same time, make the necessary changes needed for the successful integration of ICTs in the Palestinian English curricula. Finally, and based on the researcher's survey of the literature, this is the first study that deals with ICT utilization and integration by Palestinian English language teachers and the obstacles they face in the 10th, 11th, & 12th grades.

1.9 Research Limitations

First: Humanistic limitations: the study is limited by its sample that represents the English language teachers in the districts of Ramallah & Al- Bireh, Hebron and Tulkarm. The sample does not include all the cities in the West bank and Gaza because of the difficulty in reaching these large geographical locations.
Second: Time limitations: The study is limited to the second semester of the academic year (2010/ 2011) in which it was conducted.
Third: Limitations related to internet connectivity. The questionnaire items that ask English language teachers about ICT tools that require internet connection are

limited to schools which house internet connection whether with limited access or easy access and which constitute (28.5%) of this study sample.

1.10 Research Postulations

1. The study tools are valid and reliable.
1. Respondents' responses to the study tools are valid.
2. The results are trusted and objective.

1.11 Definitions of the Terms

Information Communication Technology (ICT): According to Tinio (2002), "ICTs stand for information and communication technologies and are defined as a diverse set of technological tools and resources used to communicate, and to create, disseminate, store, and manage information. These technologies include computers, the Internet, broadcasting technologies (radio and television), and telephony".

ICT literacy (background knowledge): The ability to responsibly, creatively, and effectively use appropriate technology to communicate; access, collect, manage, integrate, and evaluate information; solve problems and create solutions; build and share knowledge; and improve and enhance learning in all subject areas and experiences (Hastings, 2009).

Procedural Definitions

ICT Integration: Teachers' full access and use of ICT tools to enhance and assist the language learning- teaching process inside the classroom (i.e. in teaching English inside the classroom).

ICT Utilization: Partial use of technological applications to assist teachers in their teaching practices outside the classroom (i.e. in the administrative tasks related to teaching English that are conducted outside the classroom).

Obstacle: Any factor that prevents or restricts teachers' utilization or integration of ICT tools in the learning- teaching process of the English language.

CHAPTER TWO

THEORITICAL FRAMEWORKE & LITERATURE REVIEW

2.1 Theoretical Framework

Prior to delving into the discussion of the literature review about ICT utilization and integration in teaching English and the obstacles towards this process, it is essential to present a historical review of ICT in language teaching to illustrate what is meant by ICT in teaching English from one perspective, and to shed light on the different stages of ICT development in teaching English from another. More importantly is discussing the interplay between language and ICT tools that make ICT integration in the language classroom of paramount importance.

2.1.1 Historical Review of ICTs in Language Teaching

According to Rozgiene, Medvedeva & Strakova' (2008), the role of technological tools, the scope of activities and techniques offered, and the degree of application in the language-teaching syllabus, have undergone a number of changes alongside the evolution of technology. First, the computer offers educators immense possibilities and has been widely used in language teaching (CALL- Computer-assisted language learning). Originally, the computer was used as a vehicle for delivering instructional materials to the student (mostly through drill and practice), the so-called 'computer as tutor' model which assumed the role of a stimulus in language learning. Moreover, the computer may rather give the teacher an instrument to guide learners to use or understand the language through spelling and grammar checkers, desktop editing programs.

The next step in the development of the ICT-based language teaching was made with the emergence of Hypermedia, i.e., multimedia resources, such as text, graphics, sound, animation, video linked together. These provide a more authentic learning environment where listening is combined with seeing and language

skills, reading, writing, speaking and listening, are easily integrated. (Rozgiene, Medvedeva & Strakova', 2008; Warschauer, 1996)

Warschauer (1996) argues that the appearance of the Web gives rise to the use of the Internet in communication and learning. The Internet-mediated communication allows users to share not only brief messages, but also create lengthy documents - thus facilitating collaborative writing. Furthermore, users can share graphics, sounds and video. Even more crucially, using the Internet, users can search through millions of files from around the world within minutes to locate and access authentic materials (newspaper and magazine articles, news broadcasts, movie reviews, or books excerpt), they can use the Web to publish both texts and multimedia materials to share with their partners, classes or the general public. In other words, the Internet helps create an environment where authentic and creative communication is integrated into all aspects of the course.

2.1.2 Teaching with Computers and the Internet

 Tino (2002) shows how different ICT tools can be used in teaching. These include: presentation, demonstration, and the manipulation of data using productivity tools; use of curriculum-specific application types such as educational games, drill and practice, simulations, tutorials, virtual laboratories, visualizations and graphical representations of abstract concepts, musical composition, and expert systems; use of information and resources on CD-ROM or online such as encyclopedia, interactive maps and atlases, electronic journals and other references.

Becta (2003) illustrates some benefits of ICTs for teachers which are: ICT makes it easier for teachers to give instant feedback to learners as they are working; presentation software enables teachers to show ideas dynamically – for example, when showing suffixes joining with root words; teacher direction is reduced and pupils' control and self-regulation increased; ICT can act as a catalyst to bring about change in teachers' thinking and practice.

According to Kumar and Tammelin (2008), the use of ICT-based tools in language classrooms gives teachers the opportunity to tutor their learners more effectively by having the ability to provide individual and personalized guidance to the learners. Through the use of several media–audio, video, authentic contexts, and real-world experiences, teachers expose language learners to different learning styles which in turn help them to assimilate the content according to their needs. Kumar and Tammelin (2008) assert that in a blended learning environment that uses ICT tools, it is easier for the language teachers to use different approaches with students and accommodate different learning styles and the different needs of fast, slow, or handicapped language learners.

It is appealing to say that the use of any of these technologies in the English language classroom will bring life to it by enabling learners to cope with a variety of skills without boredom. Learners will be intrinsically motivated to learn the language of the computer and the internet which passes rapidly. More importantly, curiosity, questioning, critical thinking are among the conspicuous consequences of this integration.

2.1.3 The Interplay between ICT and Language

Kenning (2007) argues in her book that since language is human beings' main means of communicating, it is unconceivable that language could be left untouched by changes that affect communication. She also adds that with the spread of digital technologies, the integration of information and communication technology (ICT) has almost become a kind of moral imperative and should reflect the profound changes in language.

Kenning (2007) also encourages taking advantage of these technologies to enhance teaching and learning, and, of course, to raise learners' achievement. The interaction between ICTs and language is one aspect of the pedagogical exploitation of the technological developments. From another perspective, ICTs

influence language learning indirectly through their impact on communication and on language.

By the same token, Warschauer (1996: 86) argues that "if we are to fully understand the interrelation between technology and language learning, researchers have to instigate the broader ecological context that affects language learning and use in today's society, both inside and outside the classroom."

Inevitably, with the political, economical, cultural, and social changes that prevail in the modern world today accompanied by the technological revolution, language discourse is greatly affected basically in a developing country like Palestine (Zureik, 2006). Sasseville (2004) demonstrates how texts from pedagogical and educational publications make use of figures of speech that highlight the inevitability of social change and transformative power of technology. ICT is said to be revolutionary, its power is deemed limitless, and its use in education is unavoidable. Admittedly, the interplay between language and technology is unavoidable and unquestionable. However, perceptions of the impact of technology, Kenning (2007) continues, are not immune to the fallacy of 20/ 20 hindsight. She argues that whatever pedagogical uses it was put to, the language lab revolution could not have changed the whole of language education.

2.1.4 The Relation between ICT, Language and the Communicative Approach

When talking about ICT integration in teaching English in the classroom, the communicative approach is the best that describes the benefits resulting from such integration. According to Freeman (2000), the concept of ICT is communicative and interactive. Freeman's rationalization of why ICTs are used in teaching the English Language is twofold: firstly, language in communication is used to accomplish some functions; and secondly, communication is a process to convey the relevant meanings.

The underlying presumption is that language is for communication. The goal of language teaching then is to achieve communicative competence (Hymes, 1985). This means that not only linguistic elements are important, but more important is how people use language to communicate, whom to speak to, what to say, when to say, how to say, and where to say something. Rogers (1986) divides the chronology of human communication into four eras: writing, printing, telecommunication and interactive communication, with telecommunication covering one-way, one- to- mass media like radio, film and television, as well as the telegram and the telephone, whereas interactive communication refers to newer developments with two main characteristics: some degree of interactivity resembling a two- person, face- to- face conversation, and the ability to exchange a special message with each individual in a large audience. In other words, Rogers (1986) distinguishes between traditional and modern methods of communication.

The Communicative approach as Richards & Rodgers (2001) put it has four characteristics in terms of language use. First, language is a system for the expression of meaning. Second, the primary function of language is for interaction and communication. Third, the structure of language reflects its functional and communicative uses. Finally, the primary units of language are not merely its grammatical and structural features, but categories of functional and communicative meaning as exemplified in discourse. Interestingly, the Palestinian English curricula, English for Palestine, is based on the notions and ideas of the communicative approach which in turn enhance collaboration and interaction in a rich learning environment that emphasize authenticity of the learning- teaching process that could be achieved through the use of ICT.

2.1.5 Theories Related to ICT Integration

To illustrate the ICT integration process in teaching, the researcher has referred to three theories that extensively deal with the integration of technology in education. Rogers & Shoemaker (1971) show the stages of the diffusion process over time. Rogers (1995) adds that five attributes should exist to apply ICT tools

in instruction. Whereas, Ely (1990, 1999) put eight conditions to successfully use and integrate technology in teaching.

2.1.5.1 Diffusion of Innovations Theory

The adoption of a particular ICT- based technology is affected by a number of variables. Rogers & Shoemaker (1971) illustrate the process of diffusion by which an innovation is communicated through certain channels over time among the members of a social system. They define diffusion as a special type of communication concerned with the spread of messages that are perceived by the individual or other unit of adoption as new ideas. Potential adopters of a technology progress over time through five stages in the diffusion process. These are:

1. **Knowledge:** potential adopters become aware of an innovation and have some idea of how it functions. In other words, they learn how to use it.
2. **Persuasion**: potential adopters form favourable or unfavourable perceptions toward the innovation which means that they have to be persuaded of the value of the innovation.
3. **Decision**: potential adopters engage in activities that lead to a choice to adopt or reject the innovation.
4. **Implementation:** potential adopters put an innovation into use.
5. **Confirmation:** potential adopters evaluate the results of an innovation, and since they have already made the decision to use an innovation, that decision should be reaffirmed or rejected. The focus is on the user or adopter.

Through their conceptual model, Rogers & Shoemaker (1971) connect the whole process of diffusion with the time element. They illustrate that diffusion takes place over time with innovations going through a slow, gradual growth period, followed by dramatic and rapid growth, and then a gradual stabilization and finally a decline.

Rogers & Shoemaker (1971) hypothize that individuals who are risk takers or otherwise innovative will adopt an innovation earlier in the continuum of adoption – diffusion process. Accordingly, what determines the rate of adoption of any new technology is whether it shows the characteristics of an innovation or not as perceived by the members of a social system.

Rogers (1995) demonstrates five attributes upon which the use of an innovation is determined. These are:

 1. **Relative advantage** is the degree to which an innovation is perceived as better than the idea it supersedes.

2. **Compatibility** is the degree to which an innovation fits in or is compatible with the circumstances into which it will be adopted. This phase highlights the importance of the technical support that should be available upon teachers' request to implement ICT integration.

3. **Complexity** is the degree to which an innovation is perceived as difficult to understand and use. This greatly connected with training which is a crucial step to overcome this complexity.

4. **Trialability** is the degree to which an innovation may be experimented with on a limited basis and this includes the availability of resources.

5. **Observability** is the degree to which the results of an innovation are visible to others.

This theory is relevant to this study for a number of reasons: first, it addresses the process of innovation diffusion showing the stages of adoption over time. Second, it shows conceptually how each stage is interrelated to the other. Moreover, the theory implies how teachers come to make a decision whether to adopt or reject integration of technology. In other words, it forms teachers' perceptions of ICT integration.

2.1.5.2 Ely's Eight Conditions

According to Ely (1990, 1999), the successful implementation of the integration of innovations in teaching is conditioned by eight interrelated conditions. These are:

1. **Dissatisfaction with the status quo**: Things could be better. Others seem to be moving ahead while we are standing still. In the current study, dissatisfaction is based on the Ministry of Education vision to incline ICT tools in teaching as a form of reform for the inherited educational system.

2. **Knowledge and skills exist**: Knowledge and skills are those required by the ultimate user of the innovation, teachers in our case. Without them, teachers become frustrated and immobilized. Training is usually a vital part of most successful innovations.

3. **Availability of resources**: Resources are the things that are required to make implementation work-the hardware, software, audiovisual media and the like. Without them, implementation is reduced.

4. **Availability of time**: Time is necessary to acquire and practice knowledge and skills. This means good time, "school" time, and not just personal time at home.

5. **Rewards and/or incentives exist**: An incentive is something that serves as an expectation of a reward- a stimulus to act. A reward is something given for meeting an acceptable standard of performance. This is provided by leadership represented by administration at schools and also the Directorate of Education.

6. **Participation**: This is shared decision-making; communication among all parties involved in the process or their representatives.

7. **Commitment:** This condition demonstrates firm and visible evidence that there is endorsement and continuing support for the innovation. This factor is seen most frequently in those who advocate the innovation and their supervisors.

8. **Leadership**: This condition highlights the parties involved in the success of ICT adoption. In the current study, these parties are represented by Ministry of

Education & Higher Education, Directorates of Education, supervisors, and principals

It should be noted that if Ely's conditions to ICT implementation exist, they will not be considered as obstacles. On the contrary, they will be facilitators and enablers to ICT utilization and integration in the teaching practices. However, the absence of any of them may hinder the integration process. More importantly, the above conditions are interrelated and progressive along with the nature of technology which demands long satisfaction of these terms to be able to cope with the accelerating advancements of technology. Ely's conditions are used as a model in Baltaci- Goktalay & Ocak (2006). The researchers investigate the factors affecting the adoption of online technology by faculty members in higher education in Turkey using Rogers (1995) model of innovation theory. Baltaci-Goktalay & Ocak (2006) then use Ely's conditions as facilitators of technology integration linking each condition with each other showing that if the process of technology adoption to be achieved, these conditions should be fulfilled through collaboration among all the responsible parties. The researchers conclude with placing great importance on staff development which should be an important consideration when implementing any innovation. Moreover, the researchers stress the importance of financing in the implementation of technology initiatives.

Ali, Nor, Hamzeh & Alwi (2009) explore qualitatively the conditions that facilitate the implementation of ICT integration in Malaysian Smart Schools. Based on Ely's (1990, 1999) conditions, the researchers come out with two sets of conditions: first, the essential conditions which include the availability of ICT resources and ICT knowledge; second, the supporting conditions and these include accessibility to ICT resources, existence of support, desire to change, influence of external factors, and teachers' commitment to the innovation. Ali, Nor, Hamzeh & Alwi (2009) also illustrate the problems that teachers encounter during the process of ICT integration in secondary schools which are mainly the time factor and technical malfunction. The researchers utilize Rogers' (1995)

"Diffusion of Innovation Model" as a theoretical framework to discuss and put forward clearer image of ICT integration in Malaysian Smart Schools.

In the current study, the Diffusion of Innovation theory is used to clarify the steps of ICT integration that English language teachers should go through to utilize and integrate ICT tools in their teaching practices effectively.

2.2 LITERATURE REVIEW

Introduction

To examine the current obstacles to ICT utilization and integration in Palestinian schools, the body of literature presented in this review explores some studies that shed light on ICT utilization and integration in teaching English, in addition to studies dealing with obstacles to ICT utilization and integration in teaching English in specific and in education in general.

2.2.1 Studies Related to Obstacles to ICT Utilization and Integration in Education in General

Notwithstanding the fact that many studies prove that the utilization and integration of ICT in teaching are greatly beneficial, this process is not resistant to problems. According to Marriot & Torres (2009), doubt surrounds teachers' actual use of ICTs in their teaching practices despite all the attempts of schools to integrate ICTs in classes. Research shows some of these obstacles in the educational systems in some countries, whether developing or developed countries.

One of the controversial issues towards ICT utilization and integration is teachers' technology background knowledge. Hew & Brush (2007) use a descriptive approach to discuss the knowledge gaps when integrating technology into K-12 teaching and learning. They base their argument on the analysis of related research in the United States and other countries. The researchers conclude that teachers need to acquire basic technology skills before moving towards adopting constructivist teaching practices with technology.

Accessibility to infrastructure facilities is another critical point for emphasis to pave the way for the utilization or integration of ICT tools in the teaching process. Pelgrum (2001), in a worldwide survey among schools from 26 countries, reveals that the most frequently mentioned problem of integrating ICT in education is the

insufficient infrastructure facilities. This is echoed by Williams, Coles, Wilson, Richardson, and Tuson (2000) who uncover that limited availability of ICT tools lead to problems in classroom management and organization of resources. Besides, Pelgrum (2001) finds that teachers' insufficient knowledge is the other major obstacle to ICT integration in schools.

A contradictory viewpoint to Pelgrum (2001) is presented by Cuban, Kirkpatrick & Peck (2001) who use a qualitative methodology. The researchers assume that the mere availability and accessibility to software and hardware hardly ever make teachers prominent users of technology in their teaching practices. Their assumptions are examined in two high schools located at the heart of technological progress, Northern California's Silicon Valley. Contrarily, they assert that the major barriers to technology adoption are time and training which is too generic and is rarely specific to the needs of the teachers.

The National Education Association (NEA, 2008) demonstrates quantitatively that accessibility to ICT resources does not necessarily assure the integration of these tools in teaching. A survey is administered to (1,923) public school educators shows that although all educators in public schools have some access to computers and the Internet, very few assurances are given on teachers' ability to use technology effectively for teaching. The association emphasizes the importance of training following a systemic approach as a prerequisite for the movement toward full integration of technology in teaching.

When trying to explore the barriers to adopting technology for teaching and learning in Ball State University, located in Muncie, Indiana, Bulter & Sellbom (2002) find that teachers' ICT literacy, regarding background knowledge and skills required, is not an obstacle to technology adoption. This is because the majority of the participants consider themselves as proficient or very proficient in older technologies (chalkboards, overhead projectors), and newer technologies (whiteboards, computers, word- processing, e-mail and browsing the internet). Consequently, they do not consider training as a barrier to technology adoption.

However, they find that reliability problems (safety modes, compatibility software, slow internet access and out- of- date software) are major barriers. Another major barrier is the time which teachers spend when using technology in the teaching process.

Bebell, Russell, and O'Dwyer (2004) discuss the results of several surveys regarding teachers' use of technology. In 2000, the National Center for Educational Statistics (NCES) reports that although the vast majority of teachers are using technology for some aspects of their professional activities, non-instructive technology uses were pervasive. As a result of the Teaching, Learning, and Computing (TLC) survey, that has been conducted in (1998), 29% of the U.S. surveyed teachers report that they do not require their students to use a computer even once during the (1997-1998) school year. Of these teachers, even three-fourths report that they do not use technology for themselves for non-instructional purposes (Bebell et al., 2004). As a result, the development of personal computer skills is essential and must occur before teachers feel comfortable integrating technology into the classroom.

In addition to the previously mentioned issues, teachers also need certain support to effectively integrate ICT in their lessons. According to Wong (2000), the most common problem a teacher faces when conducting an ICT-lesson is students encountering technical problems. It is therefore crucial to provide teachers with technical support, especially support in trouble-shooting ICT-related problems.

Jenson, Lewis & Smith (2002) investigate the role of professional development in the implementation of computer technologies in Canadian schools. Their study is conducted over two years making the human aspect its focal point. A team of researchers visit 30 schools and 18 school districts in five Canadian provinces. Interviews with teachers, technical support staff, and administrators are used aiming at documenting the difficulties, questions, and possibilities participants encounter while making use of computer technologies in the classroom. The researchers list numerous barriers that teachers come across during the process of

computer use in their classes as limited equipment, inadequate skills, minimal support, time constraints, and the teachers' own lack of interest or knowledge about computers.

Aduwa-Ogiegbaen & Iyamu (2005) discuss the efforts of ICT usage and the obstacles to ICT integration in the secondary schools in Nigeria. The researchers assert that the obstacles that block the adoption of ICT in secondary schools and hinder their country from being on the correct track along with the digital divide are: high cost of computer hardware and software ; inadequate funds needed to provide furniture and high-tech equipments; weak infrastructure, lack of human skills and knowledge in ICT; lack of relevant software as the major stumbling block of the adoption of ICT in secondary education in Nigeria. Finally, they conclude that access to the Internet is limited because of the high cost of subscription to the Internet impoverished secondary schools in Nigeria.

Akbaba-Altun (2006) discusses the complexity of adopting and integrating computer technologies into the centralized Education system in Turkey. The researcher collects data from seventeen school principals, fifteen computer coordinators, and one- hundred and fifty one elementary education supervisors. Semi-structured interviews and a survey are used as sources of data collection. The results illustrate that the main areas of difficulty are infrastructure facilities including small classrooms, large number of students, lack of equipments, security problems, breakdowns and lack of funding for maintenance problems. Personnel problems that imply in-service training and heavy download for computer coordinators, lack of training, interest and motivation for teachers. The study also reveals problems in curriculum in terms of design, materials, assessment, and delivery of instruction. Administrators complain from the responsibility, anxiety and the conflicting roles caused by the inclusion of the new innovations into the teaching process. Supervisors do not consider themselves competent enough to be able to supervise such classes and raise problems such as having limited computer experience and not practicing computers sufficiently.

Bingimlas (2009) presents a literature review to determine the obstacles that teachers encounter during ICT integration in their schools in Saudi Arabia . The researcher summarizes the following barriers: lack of access to hardware and software, resistance to change, lack of time, lack of training, and lack of technical support. However, the researcher does not investigate these barriers recommending further investigation of them. Instead, the researcher concludes with classifying the major barriers to ICT integration into three main components which are: lack of confidence, lack of competence and lack of access. Moreover, Bingimlas (2009) considers not exploring poor administrative support and poor school funding as a limitation of his study which requires future investigation.

Almekhlafi & Almeqdadi (2010) investigate teachers' perceptions regarding technology integration in the United Arab Emirates school classrooms using a mixed methodology. They conclude that teachers in both model schools where they conduct their study have good ICT competencies and integrate different ICT tools in their classes' activities. Teachers highly perceive their usage of ICT tools such as different software, transparencies, OHPs, maps, and the internet in the classroom. However, the results indicate that there is a significant difference between males and females in their integration of ICT tools in the classroom. The mean score for female teachers' use of ICT tools is (M= 4.4), while that for male teachers is (M= 2.5). Quantitative data results support this result by showing that female teachers have more experience, familiarity, knowledge of technology resources and applications than males. Other obstacles that are perceived by teachers are time as a major obstacle , lack of training and dependence on self-learning, in addition to lack of awareness of the importance and benefits of ICT tools for the teaching process, large numbers of students, technical problems, and inavailability of hardware due to their high cost are main problems that passively affect the process of integration.

Zhao & Bryant (2006) examine qualitatively if trained teachers on technology integration can reach high levels of technology integration in their instructional practices, and how trained teachers perceive technology training and how it

affects their teaching. Participants in this study are classroom teachers who successfully complete this statewide curriculum-based technology integration training in the past three years at one of the 13 InTech training centers or via district sponsored staff development. Data analysis shows that technology integration training is effective at the basic level, but training alone cannot lead to higher levels of technology integration in instruction. Although technology-training opportunities become widely available to teachers, this study indicates a need for more post training or one-on-one mentoring experiences in order to better support teachers' integration of technology. Moreover, teachers list a variety of factors that affect whether and how they would use technology routinely in the classroom. These include technology access, integration support, time constraint, and curriculum coverage.

Al-Jaraideh (2009) describes the factors affecting information and communication technology integration in Jordanian secondary public and private schools. He applies a questionnaire to 360 teachers of English, Maths, & Science in the Amman area. The researcher uses mixed methodology to conduct his study. Quantitative results indicate that time related obstacles, training and insufficient equipment as major barriers that hinder teachers from integrating ICT in Jordanian schools. However, teachers do not encounter technological skills obstacles because they received training from the Ministry of Education. In addition, qualitative results reveal that teachers view administration and leadership related obstacles as the least ones among other obstacles.

Ismail, Almekhlafi, & Al- Mekhlafy (2010) examine the perceptions of both teachers of Arabic and teachers of English about the use of technology in their classes in the United Arab Emirates (UAE) schools. The researchers use a mixed methodology approach where (342) teachers of English and Arabic languages in five emirates participate in the study. Results indicate that lack of time as the major barrier acknowledged by teachers of both English and Arabic. By contrast, teachers highly outlook their technological competencies and consider the deficiency of knowledge and skills in technology integration as the least

important barrier they may face with a mean score ranging from (M= 3.7 to M=4.5). However, qualitative data reveals that despite the high perceptions of teachers of their competencies to integrate technology in their classes, teachers need more workshops and training in using certain sophisticated programs.

Hurd (2009) discusses why computer assisted learning makes so little impact in secondary education. The researcher reports the findings of a twenty- year longitudinal study of computer use in economics and business studies in the UK secondary schools. The researcher presents the reasons for the failure of national ICT initiatives in the UK between (1985-2005) at subject level. In addition to presenting some of the constraints that teachers encounter during the integration process within the twenty years. Constraints include infrastructure facilities, access to ICT resources, sources of knowledge on ICT. The researcher concludes that despite the national training programs, teachers show little inclination to use ICT and show reluctance to acquire ICT related knowledge and skills. The overall use of ICT by teachers in the past twenty years remain relatively low. According to Hurd (2009), the reason for this resistance and the marginalized impact of computers on subject matter is lack of congruence between developers of software and teachers in the classroom. Governments want ICT tools to be used in the classrooms, but with no clear understanding of how and no specific policies for this usage.

Jegede (2009) examines ICT - related behaviours of teacher educators in Nigeria. The researcher wants, among other things, to find out the effect of the age of educators when interacting with ICT. Through administering four instruments to four hundred and sixty seven teacher educators from (5) colleges of education and (5) universities for collecting the required data, the findings of the study reveal that age does not affect teachers' competence and use pattern of ICT.

2.2.3 Studies Related to Obstacles to ICT Utilization and Integration in Teaching English

Since one of the main objectives of the current study is investigating the obstacles that prevent English language teachers from utilizing and integrating ICT tools in their teaching practices, it is appealing to present some of the studies that discuss some of these obstacles when experimenting with a variety of ICT tools in the English language classroom.

Samuel & Abu Bakar (2006) examine the situation of English language teachers in relation to ICT integration in Malaysia, and try to determine if ICT skills of English language teachers in the light of the existing infrastructure facilities are adequate to promote English language teaching and learning. The sampling frame of the study consists of primary and secondary school teachers in three premier schools in Banting. Over a period of six months (July to December 2005), the researchers conduct face-to-face, and semi structured interviews with 30-trained teachers from three schools. They report that almost two-thirds of the respondents acknowledge that their ICT skills are generally poor accompanied by mean technical or administrative support. They uncover that teachers of English rarely carry out ICT integrated lessons.

Samuel & Abu Bakar (2007) conduct another quantitative complementary study a year later with the aim of uncovering whether teachers of English have adequate ICT resources and skills to incorporate ICT tools in teaching and learning in Malaysian schools. The study is based on the findings of a questionnaire conducted over a period of five months between 1st of September 2004 to 1st January 2005. The researchers reveal in their findings that although a fairly large number of English language teachers have the necessary ICT skills, still the utilization of available ICT resources is far from being satisfactory. For one reason, schools in Malaysia generally lack ICT infrastructure facilities except for basic resources. For another, training how to implement these tools in teaching is not enough.

Thao (2003) studies the contribution of multimedia tools to learners of English as a foreign language (EFL). He argues that despite the advantages of authenticity, interactivity, various accessible resources, and combinations of pictures, sound and text which multimedia offer in teaching language, many language teachers have not yet maximized their benefits. This is noticeable because the study surprisingly reveals widespread unfamiliarity with ICT tools among teachers. It uncovers that seventy percent of the teachers need technical assistance due to lack of training in service although they have learned some computer skills at the university.

Bordbar (2010) explores the reasons and factors that stimulate high school language teachers to use ICT in Iranian schools. He also examines how teachers apply their technological experience and knowledge in the language classrooms in a way that enhance their professional development. Using a mixed method for data collection, the researcher points that the greatest limitation to teachers' use of ICT is lack of time. In the second rate of importance that pressures teachers not to use ICT is lack of administrative support. The findings rate resources as the last major barrier which prohibits teachers' use of ICT tools.

Hussain, Jumani, Sultana, & Iqbal (2010) explore the perceptions and practices about information and communication technologies in teaching business English in Pakistan. The researchers aim to show how university teachers benefit from ICTs by making their English classes more effective in addition to presenting some of the problems teachers encounter while implementing ICTs in teaching business English. Twenty teachers (twelve males and eight females) from five different universities located in Islamabad in Pakistan are chosen randomly using the snowball sampling to select the participants. The researchers use semi-structured interviews as tools for data collection. The study gives evidence how the use of ICTs such as the use of online free listening courses in their lectures improve listening comprehension, and how teaching becomes more flexible, interesting and motivating. This is due to exposing learners to authentic updated materials which the internet offers. Despite these positive results of using ICTs in

teaching business English, teachers report the following as problems during the implementation of ICTs: lack of training on technological literacy; lack of pedagogical knowledge; lack of funds and administrative indifference; uncertainty and crumpling of network (viruses, hackers, breaking down during network teaching).

Maheswari (2010) investigates the importance of using language laboratories on improving listening comprehension showing how they can be an excellent resource for developing listening comprehension. However, the researcher conditions the following as pre-requisites for the use of language laboratories in teaching listening comprehension to be successful:

- Adequate maintenance and servicing arrangements. Teachers should not only be aware of the mechanical operation of the equipment, but also of its inherent methodological advantages and limitations.
- Suitable recorded materials or staff with time, facilities and ability to produce them should be ready in hand.

Barad (2009) experiments with a variety of ICT tools weighing extensively on web resources in teaching the English language and literature. These tools include OHP, CDs, DVD, TVs, video, mobile phones, internet, blogs, e-groups, SMSs, emails, socializing portals, e-dictionaries, e-encyclopedia, PowerPoint presentations, webcasting, and audio-video, as teaching tools have been made in the classroom. The researcher states that ICT has improved his proficiency in explaining the restrained mysteries of literature since ICT has given him more time for discussion and explanation. Moreover, the researcher concludes that the use of ICT tools outperform the traditional methods in delivering the required information to learners because of their ability to deal with the individual differences between the learners.

2.2.3 Studies Related to ICT Utilization and Integration in Teaching English

Due to the corresponding association between language and technology innovations, and the advantageous affordances in the field of teaching languages, different studies have been conducted regarding ICTs and their utilization and integration, to show how the different ICT tools can constructively add quality to teaching the English language and positively affect teachers' professional development.

Verdugo & Belmonte (2007) come out with interesting results while examining the effects that digital stories may have on the understanding of listening comprehension through carrying out a quasi-experimental research in six state schools in Madrid. A pre-post test design is used to investigate whether internet-based technology can improve listening comprehension in English as a Foreign Language. Findings indicate that the experimental group outperformed the control group in the final test administered. The results confirm the link between ICT rich environment and improved language teaching and learning.

Hu (2007) explores the impact of using ICT in improving English Reading comprehension in China. He finds that a technology-rich student-centered approach enables students to improve their reading ability more quickly, efficiently and independently compared with more traditional ways of teaching. This is due to the interactive constructive environment that ICT tools provide while teaching through exposing the learners to authentic contexts such as reading up- to- date news in English on the website of the BBC or *The New York Times* through online accessibility. Moreover, teachers can present full reading comprehension passages by visiting English Websites to their students. Hu (2007) presents his own experience in teaching at the university in China of incorporating ICT asserting the effectiveness of this incorporation in teaching English in comparison with the old traditional methods. Teaching intensive reading classes using multimedia enables the teacher to incorporate video and other visual aids.

Also using video clips and movies spread enthusiasm in the classroom while teaching English reading comprehension.

Noticeably, the importance of teacher training to possess the needed ICT skills is a prerequisite for the implementation and success in ICT integration and utilization on the one hand, and a requirement for their professional development on the other hand. Camacho (2007) provides an on-line instructional model for English language teachers which she carries out during the academic years 2003-2004, 2004-2005 and 2005-2006 to train English language teachers on how to use of ICT by making use of web-based methodology. Camacho(2007) uses different web based straining platforms with specific training modules, a collaborative environment, and uses different communication tools and resources exclusively dedicated to teachers aiming at providing new perspectives to face the teaching of English as a foreign language from an innovating perspective. The implementation of such an instructional model aims at contributing to enhance quality standards in the teaching of English as a foreign language through the use of ICT and to fill the gap of the instructional needs that digital age teachers need.

Salameh (2010) presents an offline –flash based prototype system for English language learners using cell- phones at the Arab American University in Palestine to enhance teaching English language skills. The system consists of ten Learning Objects (LO) constructed using the multimedia approach. The researcher bases his project on the idea that cell phones are the most widespread devices among mobile computing devices, and are available in the hands of almost every university student. He asserts that the functionalities cell phones are equipped with including internet access, mp3/mp4 player, digital camera, video recorder, in addition to their ability to run multimedia content, make them attractive as educational tools as well. The system was tested on 60 students enrolled in the Advanced English spring course in 2009. Initial testing demonstrates the efficiency of the system and it is extremely well received by students. However, the system works incorrectly or does not work in some cases because of the

inavailability of newer versions of cell phones with all students due to high cost of these phones.

Wu (2005) presents a theoretical framework of network based- language teaching in Taiwan. Interestingly, the researcher offers some pedagogical implications of how the internet, asynchronous and synchronous interaction, can best be used in teaching English as a foreign language. The email is presented showing how teachers' participations can be compared and interaction between learners may be enhanced resulting in improving learners' language skills. Instructors from different countries can collaboratively exchange projects that are called "Keypal Exchange projects". However, the researcher concludes that it is difficult for teachers interested in Keypal exchanges to find matching classes easily. Two models of asynchronous communication, Listserv and Bulletin boards, are also presented. Emails addressed to a Listserv mailing list will automatically broadcast to everyone on the list. Bulletin Board Systems (BBS) provide a variety of topical newsgroups and discussion forums in which participants of common interests can exchange open messages. Also it enables teachers to join specialized emailing lists to seek professional solutions if they wanted.

Wu (2005) also presents some applications that can be used by teachers to enhance teaching language such as multimedia presentation through the use of web sites presenting text and graphics accompanied by audio, animation, and video. Dynamic interaction through discussion forums or chat sessions to their online courses and receiving feedback. The researcher also presents some forms of synchronous interaction such as instant messenger MSN messenger and yahoo messenger which keep a record of users' conversations which in turn make it possible for teachers to retrieve their own chat log. Another form is the internet Skype telephony which offers high quality computer- mediated synchronous audio- textual communication. Blogs, which are online personal journals that are frequently updated, can be easily used to create a collaborative learning environment in which students can peer edit others' postings. However, not all

these applications are free of constraints including mainly technical issues, digital skepticism, time consumption, and incredibility of web sites.

2.2.4 Summary of the Literature Review

To conclude, the global obsession with ICT utilization and integration in education directs research towards this movement because ICT tools along with the English language, the language of power, have been considered the future of education in any country. The wealthy body of literature presented in this study aims to highlight two main issues: one issue is the utilization and integration of ICT tools in teaching English, and the other is the obstacles towards the utilization and integration of ICT tools both in teaching English in particular and in education in general. Most of the studies that investigate the integration of ICT tools in teaching English in this study emphasize the positive effects of ICT tools where communication occurs in an interactionist constructivist environment either this communication is one- way telecommunication or interactive telecommunication as Rogers (1986) divides communication. Moreover, the literature shows how the different language skills can be enhanced through the use of ICT tools and how teachers can become facilitators in the teaching process according to the modern approaches of teaching. However, it is worth noting that these studies and projects are basically conducted in universities which offer better facilities than schools in terms of infrastructure facilities, qualified teachers and professional technical personnel.

The other part of the literature presented in the current study addresses the numerous obstacles that affect ICT utilization and integration either in teaching English or in education which are comparatively similar. These obstacles can be summarized as follows:

1. Lack of knowledge and skills.
2. Poor infrastructure facilities (ICT availability and accessibility).
3. Time related obstacles.
4. Insufficient training and technical support.
5. Leadership support related obstacles.

CHAPTER THREE

RESEARCH METHODOLOGY

3.0 Introduction

This chapter describes the background of the research design, population, sampling and data collection instruments. In addition, the researcher identifies the procedures used for data collection, study variables, and data analysis procedures.

3.1 Research Design

This is a descriptive study that aims to first investigate the perspectives of English language teachers of the tenth, eleventh & twelfth grades towards ICT utilization and integration in their teaching practices in the Palestinian public schools in the districts of Ramallah and Al-Bireh, Tulkarm & Hebron. Furthermore, it aims to find out the obstacles that prevent those teachers from sufficiently utilizing and integrating ICT tools in their instructional practices either in teaching English or in their administrative tasks.

The study employs a mixed methodology to achieve its aims. The researcher bases the inquiry on the assumption that a combination of quantitative and qualitative data provides a more complete picture by noting trends and generalizations as well as in- depth knowledge of the participants' perspectives (Creswell & Clark, 2007). Data has been collected quantitatively and qualitatively. The study begins with the questionnaire in order to generalize the results to a wide population, in the second phase, semi- structured interviews have been held with twelve teachers chosen from those who have responded to the questionnaire to collect detailed views.

3.2.1 Population and Sample

The population of this study encompasses all the English language teachers who teach the tenth, eleventh & twelfth grades in Palestinian public schools in the districts of Ramallah & Al-Bireh, Tulkarm & Hebron. Since Palestine is divided geographically into south, middle and north, the researcher has chosen a city from each to be representative for the whole population of Palestine. The population consists of 388 teachers distributed in (210) schools as illustrated in table (1) according to the Ministry of Education and Higher Education Statistics (MOHE, 2010/ 2011). Out of this population, the researcher used a stratified random sampling due to the large number of the population and geographical location and selected (273) teachers. The distribution of teachers appears in table (2) according to districts, gender, and number of schools. The sample size is determined based on Yamane (1967) equation:

n=$\underline{\quad N \quad}$ (n for sample size, N for population= 388, e for precision=0.05).
     $1+N(e)^2$

The result is (197) which is nearly (50%) of the population. However, the sample size chosen is (273) teachers that is (70%) of the population in order to be able to gain better results that can be generalized. (Jonson & Christensen, 2000).

Table (1): Distribution of the population according to districts, gender, and number of schools:

District	Number of schools	Female teachers	Male teachers	Total number of teachers
Ramallah and Al-Bireh	110	106	77	183
Tulkarm	42	44	36	80
Hebron	58	68	57	125
Sum	210	218	170	388

Table (2): Distribution of the study sample

District	Number of schools	Female teachers	Male teachers	Total number of teachers
Ramallah and Al-Bireh	74	74	54	128
Tulkarm	26	31	26	57
Hebron	32	48	40	88
Sum	132	153	120	273

3.3 Study Variables

The study tackles the following variables:

First: Predictor variables which include:

- Gender.
- Experience and it has four levels: less than a year, 1-5 years, 6-10 years, 11 years & above.
- Qualification degree and it has four levels: Diploma, BA, BA+ Diploma, MA.
- Number of ICT courses teachers studied in pre- service (at the university) and it has five levels: None, one course, two courses, three courses, four courses or more.
- Number of ICT training courses teachers attended in service provided by the Ministry of Education and it has five levels: None, one course, two courses, three courses, four courses or more.
- Language skill teachers use ICT in most and has five levels: None, Listening, Speaking, Reading, Writing.
- Language area teachers use ICT in and it has six levels: None, Vocabulary, Grammar, Spelling, Pronunciation, Dictation.

- Percentage of classes teachers use ICT in per week and has five levels: 0%, less than 25%, 25% - less than 50%, 50%-75%, above 75%.

- Availability of ICT resources at school and it has four levels: Not available/ present in my school, available but not accessible (can't use or sign up for) available but have limited access, available and have easy access.

Criterion variables include: The level of responses of the study sample to the questionnaire items and the interview.

Table (3) presents a description of the study sample responses according to its predictors.

Table (3): Description of the study sample responses according to its predictors

Variable	Category	Number
Gender	Male	97
	Female	124
Experience	less than a year	8
	1-5 years	49
	6-10 years	57
	11 years & above	107
Education Qualification (Degree)	Diploma	15
	BA	159
	BA+ education diploma	33
	MA	14
ICT training courses at the university	None	110
	One	62
	Two	25
	Three	11
	four or more	13
ICT training courses at work	None	81
	One	66
	Two	42
	Three	14
	four or more	18
Language skill ICT is used in most	None	31
	Listening	93
	Speaking	29
	Reading	43
	Writing	25
Language area ICT is used in most	None	32
	Vocabulary	44
	Grammar	51
	Spelling	20
	Pronunciation	64
	Dictation	10
Percentage of ICT use per week	0%	33
	less than 25%	119
	25%- less than50%	51
	50%- less than75%	14
	above 75%	4

3.2.3 Instrumentation

This study uses two instruments for data collection: a questionnaire and an in-depth interview. Here is a description of both instruments in terms of validity, reliability and data analysis quantitatively and qualitatively.

3.2.3.1 The First Instrument: The Questionnaire

In order to achieve the study objectives, the researcher has constructed the main study instrument, the questionnaire, after referring to previous studies and literature review (Al-Jaraideh, 2009; Hastings, 2009; Samuel & Abu Bakar, 2007; Wee & Abu Bakar, 2006). The questionnaire in its final script consists of three parts.

The first part includes personal information about the participants (district, gender, experience, educational degree, number of ICT training courses teachers attended at the university, number of ICT training courses teachers attended at work, language skills and areas teachers use ICT in mostly, and percentage of classes teachers use ICT in). The second part includes information regarding the availability and access to ICT resources in the teachers' schools. The second section uses a four- point likert scale that is used in Hastings (2009) to determine level of accessibility to these resources. These are: 1= Not available in my school; 2= Available but not accessible (can't use or sign up for); 3= Available but have limited access to it; 4= Available and have easy access to it. Definitions of some new terms that are used in the questionnaire are added to the end of the questionnaire.

The third section includes the questionnaire items. This section has been divided into five main domains which are:
Domain one: Obstacles related to teachers' background knowledge and skills (basic and advanced) concerning the use of ICT (items 1-17).
Domain two: Obstacles related to infrastructure facilitties and cost (items 18- 28).

Domain three: Obstacles related to teachers' ICT tranining(pre- service & in – service, items 29- 34).

Domain four: Obstacles related to time allotted (items 35- 38).

Domain five: Obstacles related to administrative & technical support (items 39-47).

Responses to the questionnaire items are rated according to Likert scale which uses five –point fully anchored rating scale ,where numbers are followed by descriptors, namely: (5)Strongly agree,(4) Agree, (3) Neutral, (2)Disagree, and (1)Strongly disagree (Jonson & Christensen, 2000). The questionnaire is analyzed using the Statistical Package for the Social Sciences (SPSS). Since the questionnaire aims to find out obstacles which are negative in nature, all the items remain negative.

To specify the obstacles encountered by English language teachers when utilizing and integrating ICT in their teaching practices, the researcher has adopted the formula that has been used in Al- Jaraideh (2009) which includes the following intervals:

$1 \leq M < 1.8$	very low- level obstacles
$1.8 \leq M < 2.6$	low- level obstacles
$2.6 \leq M < 3.4$	moderate- level obstacles
$3.4 \leq M < 4.2$	high- level obstacles
$4.2 \leq M < 5$	very high- level obstacles

3.2.3.1.1 The Questionnaire Validity

To ensure the external validity of the study questionnaire, it has been presented to eight experienced reviewers of different specializations. For further details about the reviewers please see appendix (1). They have stated their opinions concerning each item. Their main comments are taken into consideration and they focus basically on linguistic modifications, changing the arrangement of the questionnaire domains or items, deletion of some items, addition of some items,

addition of definitions of some new terms that are used in the questionnaire and changing the scale used from a four- likert scale to a five-likert scale by adding a fifth choice, neutral.

3.2.3.1.2 Content validity

To ensure the internal consistency of the whole questionnaire, two pilot studies have been conducted. First, the questionnaire was administered to a sample of (20) teachers who represent (5%) of the study population. Second, the questionnaire was administered face- to- face to other three language teachers in Ramallah & Al- Bireh districts to give their opinions regarding the clarity of all the items for them, and if there were other obstacles the questionnaire did not count for. Finally, factor analysis was conducted for the pilot study. Items (16, 19, 23, 24, 39) were deleted because they have fallen under different factors which may cause misunderstanding or unclarity of the intended meaning of these items. The final number of the questionnaire items is (47). The questionnaire in its final script consists of:

The first part: general information.
The second part: available ICT resources in schools (14 items) to determine the level of accessibility to ICT resources.
The third part: the questionnaire items that consisted of 47 items divided into five domains which are:
  1. Obstacles related to teachers' background knowledge and skills (basic and advanced) concerning the use of ICT (items 1-17).
  2. Obstacles related to infrastructure facilitties and cost (items 18- 28).
  3. Obstacles related to teachers' ICT traning (pre- service & in – service, items 29- 34).
  4. Obstacles related to time allotted (items 35- 38).
  5. Obstacles related to administrative & technical support (items 39-47). For more details about the questionnaire, please see appendices (2&3).

3.2.3.1.3 Reliability

To ensure the questionnaire reliability, Cronbach alpha has been calculated for each domain separately and for the whole instrument as it appears in table (3). Cronbach alpha for the whole instrument in its final script is (0.936) which is relatively high. This in turn means according to Joudeh (2008) that the instrument is reliable enough to be distributed to the study sample. Table (4) presents Cronbach alpha for each domain of the questionnaire and for the all the domains.

Table (4): Cronbach Alpha for each domain and all the domains.

The domain	Cronbach Alpha	Number of items
Obstacles related to teachers' background knowledge and skills (basic and advanced) concerning the use of ICT	0.945	17
Obstacles related to infrastructure facilities and cost	0.879	11
Obstacles related to teachers' ICT training (pre- service & in – service)	0.793	6
Obstacles related to time allotted	0.805	4
Obstacles related to administrative & technical support	0.876	9
Reliability of all the domains	0.936	47

3.2.3.2 The Second Instrument: The Interview

The primary aim of the interview is to gather more in- depth information about ICT utilization and integration in Palestinian public schools, and to deeply investigate the obstacles that prevent the successful implementation of ICT by teachers of English in their teaching practices inside or outside the classroom. A set of questions has been prepared by the researcher based on the domains of the study questionnaire for the interview. Detailed information about the interviewees

can be sought in appendix (4). The questions were asked to the interviewees in the same order allowing a level of flexibility where the participants had the chance to express their own thinking and ideas freely and openly. Moreover, asking the questions in the same order allows more room for comparing and contrasting the resulting data. The interviews were held individually and the duration of each interview lasted from (20 to 45) minutes according to the collaboration of the participants with the researcher. Most of the interviews were voice – recorded, transcribed and then submitted for data analysis. For further details of the interview questions, please see appendix (5).

3.2.3.2.1 Interview Validity

To ensure external validity, the questions are presented to four reviewers to determine their consistency with what the questionnaire measures. However, according to Patton (2002: 20), validity that is relevant to qualitative data is descriptive validity, interpretive validity, and theoretical validity.

The descriptive validity refers to the degree of factuality of what is reported and has been maintained in the current study through utilizing voice recording and transcription of that data. This inclusiveness of data record enhances validity and reliability. Interpretive validity according to Patton (2002) refers to the ability to interpret and understand accurately the meaning which is conveyed by the research participants. Interpretive validity is first insured through taking into consideration participants' feedback that is called member check (Patton, 2002). Secondly, the researcher depended greatly on what the participants really say and has referred to direct quotations during the phase of data analysis. Theoretical validity refers to the degree to which a theoretical explanation fits the data (Joneson & Christensen, 2000). To ensure theoretical validity, the researcher has referred to the triangulation strategy which involves the use of multiple sources of evidence to confirm the emerging findings (Joneson & Christensen, 2000), and pattern matching which refers to how findings match reality.

3.3   Data Collection Procedures

This is a descriptive study that was conducted during the academic year (2010/ 2011). It aimed to investigate the perspectives of the English language teachers in 10th, 11th & 12th grades towards ICT utilization and integration in Palestinian public schools and the obstacles towards this process. To achieve the study aims, it was carried out in two stages:

The first stage included the following procedures:

- Getting an official document from Birzeit University to be addressed to the Ministry of Education, requesting permission to facilitate the mission of getting the information needed about the study population in the districts of Ramallah & Al Bireh, Tulkarm and Hebron.

- Getting an official document from the Ministry of Education to be addressed to the Directorate of Education in each district to get the information needed.

- Getting the names of schools in the three districts from the planning section in the Directorate of Education in each district.

- Distribution of the study instrument to a pilot group outside the study sample.

- Getting an official document from Birzeit University to be addressed to the Ministry of Education, requesting permission to facilitate the mission of distributing the questionnaires and conduct the interviews in the districts of Ramallah & Al Bireh, Tulkarm and Hebron after sending a copy of the study instruments for review and agreement to the Ministry of Education.

- Getting an official document from the Ministry of Education which was addressed to the General Education Section in each Directorate of Education in the three districts to tackle the responsibility of distributing the questionnaires to the addressed schools.

- Getting official documents from the Directorates of Education in the districts of Ramallah & Al- Bireh, Tulkarm and Hebron to facilitate the mission of distributing the questionnaires and conducting the interviews.

- Distributing the questionnaires to the study sample with the help of the General Education Section in the Directorate of Education in each city on 8/3/2011.

- Finishing data collection on 10/4/2011 where (227) questionnaires were gathered, about (83%) of the study sample.

- Six questionnaires were eliminated because of their invalidity for analysis. This is because teachers either left them empty, incomplete, or filled only with the choice neutral.

- (221) questionnaires were analyzed using SPSS which constitute approximately (80%) of the study sample. Table (3) shows a description of the study sample that was analyzed.

The second stage included the following procedures:

- Choosing twelve teachers purposefully, four teachers from each district to hold the interviews with.

- The interviews have been conducted and recorded using voice recorder for precision except for three interviews which have been written by hand upon the interviewees' request who refused to record their voices.

- Qualitative analysis for the interviews is conducted and results inferred.

- An association between the questionnaire results and the interview results is made to show how consistent the results are.

3.4 Statistical Analysis of the Questionnaire

Statistical Package for Social Sciences (SPSS) was used to analyze the data. The participants' responses were scanned and coded into (SPSS). Descriptive analysis, Independent sample t-test, one- way ANOVA analyses were used to answer the study questions. Different kinds of tests were used because this lends itself easily to quantitative analysis.

To answer the first question, to what extent do English language teachers of the 10th, 11th, and 12th grades use ICT tools in their teaching practice? frequencies and percentages were calculated for the variables: the percentage of classes they use ICT in per week, the language skill they use ICTs in most, the language area they use ICTs in most.

To answer the second question, what are the obstacles to utilizing and integrating ICT tools in the teaching practice inside and outside the classrooms in Palestinian public schools from English language teachers' perspectives? means and standard deviations were calculated for the items of each of the five domains and for the items of the domains as a whole.

To test the three hypotheses which are formed to answer the third question: do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their responses to the obstacles' presence due to gender, expertise (practical experience), and educational qualifications (degree)? Independent sample t-test was used to test the first hypothesis, One-Way ANOVA was used to test the second and third hypotheses. To find out the sources of variances, post- hoc test using the LSD test was used.

To examine the fourth question, do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their use of ICT tools according to:

a: the availability and accessibility of ICT resources in their schools,

b: the number of training courses they received pre- service i.e. at the university,

c: the number of ICT training courses they attended in- service i.e. provided by the Ministry of Education? frequencies and percentages were calculated for the responses to the three variables: ICT resources, training courses pre-service and in- service.

3.5 Interview Data Analysis Procedures

Data was analyzed following the procedures suggested by the Grounded Theory as clarified by Strauss & Corbin (1990). Three stages of data collection were followed which were:

1.   Open coding is the first stage in the grounded theory data analysis. In this stage, the researcher reads the transcribed interviews thoroughly, examines them and labels the main words, phrases, and sentences or patterns. Then, names and categorizes discrete elements in the transcribed data.

2.   The axial coding is the second stage in the grounded theory. In this stage, the researcher develops concepts into categories and organizes the categories. The researcher then looks what themes have appeared through the participants' responses to the interview questions. The researcher also looks for possible relationships among the categories in the data.

3.   The selective coding is the final stage in which the researcher looks for the subject line through reflecting on the resulting themes from the data through the open coding and the axial coding. The researcher does so through re-chunking similar concepts and themes into bigger categories, and then reconnecting the complete theoretical frame that is grounded from the data analysis into the whole study's theory and integrate all the parts together.

CHAPTER FOUR

DATA ANALYSIS AND FINDINGS

4.0. Introduction

This chapter deals with the findings of the study on the basis of both the questionnaire and the interview. It first presents quantitative findings of the questionnaire. Then, it presents qualitative findings of the interview. Finally, it shows the linkage between both types of results confirming the meeting points between the questionnaire and the interview and illustrating any contradictory points between them.

4.1 Quantitative Data Analysis

This section presents the findings of the quantitative part represented by the participants' responses to the questionnaire items in the light of the research questions.

4.1.1 Results of the First Question

To answer the first question: To what extent do English language teachers of the 10th, 11th, and 12th grades use ICT tools in their teaching practice? statistically, frequencies and percentages were calculated for the variables: the percentage of classes English language teachers use ICT in per week, the language skill they use ICT tools in most, the language area they use ICT tools in most as table (5) shows.

Table (5): The extent of teachers' ICT integration in their teaching practices

Variable	Variable Level	Frequency	Percentage
Percentage of ICT use per week	0%	33	14.9%
	less than 25%	119	53.8%
	25%- less than 50%	51	23.1%
	50%- 75%	14	6.4%
	above 75%	4	1.8%
Language skill ICT is used in most	None	31	14.0%
	Listening	93	42.1%
	Speaking	29	13.1%
	Reading	43	19.5%
	Writing	25	11.3%
Language area ICT is used in most	None	32	14.5%
	Vocabulary	44	19.9%
	Grammar	51	23.1%
	Spelling	20	9.0%
	Pronunciation	64	29.0%
	Dictation	10	4.5%

Table (5) reveals the results of three variables that determine the extent of ICT use by English language teachers'. It shows that (33) English language teachers out of (221) teachers representing (14.9%) of the study sample do not use ICT in their teaching practice at all. It also shows that the percentage of English language teachers whose use of ICT is less than (25%) constitutes (53.8%) of the overall study sample which is relatively high. In addition, (23.1%) falls under the category (25%- less than 50%). Whereas, under the category (50%-75%) that represents English language teachers who most of the time accompany one form or another of ICT in their teaching practice falls just (6.4%). Only (4) English language teachers representing (1.8%) come under the category (above 75%). This in turn means that very few English language teachers are high adopters of

ICT in their teaching practice, and that the majority of English language teachers are low or intermediate users of ICT in their teaching practice.

As for the language skill that English language teachers use ICT in most, it has been found that (31) English language teachers representing (14%) do not use ICT in any language skill. Moreover, the results disclose that receptive skills, listening and reading, have the highest scores (N=93, 42.1%; N=43, 19.5%) respectively. Whereas, productive skills, speaking and writing, have lower scores and which are comparatively close (N= 29, 13.1%; N=25, 11.3%) respectively.

Frequency and percentage counts of the third variable reveal that (14.5%) of English language teachers do not use ICT in any language area. Dictation and spelling are the least areas in which English language teachers use ICT in (4.5% & 9%) respectively. In the second place come both vocabulary and grammar with a little difference in favour of grammar (19.9% for vocabulary & 23.1% grammar). The language area that has the highest score is pronunciation (29%).

4.1.2 Results of the Second Question

To answer the second question: What are the obstacles to utilizing and integrating ICT tools in the teaching practices inside and outside the classrooms in Palestinian public schools from English language teachers' perspectives? means and standard deviations are calculated for the whole study items and its five domains.

Table (6): Means & Standard Deviations of all the questionnaire domains

No.	Domain	Means	Standard Deviations
1	Obstacles related to teachers' background knowledge and skills (basic and advanced) concerning the use of ICT	2.85	1.350
2	Obstacles related to infrastructure facilities and cost	3.56	1 .219
3	Obstacles related to teachers' ICT training(pre- service & in – service)	3.68	1.112
4	Obstacles related to time allotted	3.79	1.138
5	Obstacles related to administrative & technical support	3.55	1.163
	Total	3.59	1.231

It is clear from table (6) that teachers encounter different obstacles when utilizing or integrating ICT tools in their teaching practices. This is pointed out by the high overall mean of all domains related to obstacles of utilizing or integrating ICT tools as viewed by teachers. The overall mean and standard deviation are (M= 3.59; SD= 1.231) respectively.

To further detail the results, means and standard deviations are calculated for each domain and its items separately.

Table (7): Means & Standard Deviations of the first domain presented in ascending order

Obstacles related to teachers' background knowledge and skills (basic and advanced) concerning the use of ICT			
No	Items	Means	Standard Deviations
1	I lack the ability to understand basic computer commands like save, copy, etc.	1.99	1.263
2	I lack the ability to use the printer.	2.07	1.319
3	I lack the ability to use Microsoft word.	2.29	1.351
4	I lack the ability to retrieve information from the internet.	2.54	1.403
5	I lack the ability to send and receive e-mails.	2.58	1.427
6	I lack the ability to use CD- ROM (optical disk capable of storing large amounts of data).	2.59	1.39
7	I lack the ability to use MSN Messenger (instant message software) or other tools of communication with other teachers.	2.76	1.417
8	I lack the ability to use the spreadsheet (Microsoft Excel).	2.90	1.348
9	I lack the ability to use PowerPoint presentation.	2.92	1.401
10	I face technical difficulties when I am working on a personal computer (e.g. linking it to other tools, presenting saved material).	3.09	1.381
11	I find certain programs such as excel difficult to learn.	3.16	1.355
12	I cannot use a variety of programs (software).	3.19	1.344
13	I lack the ability to integrate ICT tools (email, e-learning system) in teaching English.	3.19	1.338
14	I have insufficient experience about how to integrate technology into my teaching practices.	3.21	1.252
15	I lack the ability to use a scanner	3.24	1.329
16	I have insufficient knowledge about how to integrate technology into my teaching practices.	3.29	1.285
17	I lack advanced skills in using a specific program (e.g. downloading programs, signing in or out of for example web camera, Skype, blogs, wikis, etc).	3.42	1.361
	Total	2.85	1.350

Table (7) presents the results of the first domain which deals with teachers' ICT background knowledge and skills in an ascending order. The results show that the

only item that is considered by teachers as low-level obstacle is item (1) which asks teachers about understanding basic computer commands (M= 1.99; SD= 1.263). Whereas, the only item that is considered as high- level obstacle is item (17) with a mean (M= 3.42; SD= 1.361) where teachers reveal that having advanced skills which enable them to use programs like Skype in teaching English is a big obstacle. The items are displayed in an ascending order to specify the skills that teachers possess and those skills which they consider as obstacles and thus a need for training.

However, despite the fact that the rest of the items are viewed as moderate- level obstacles by English language teachers, the highest means in this domain are scored by items that ask teachers about the pedagogical knowledge required to integrate ICT tools in teaching English as the results of item (13) (M= 3.19; SD= 1.338), item (14) (M= 3.21; SD=1.252);), and item (16) (M=3.29; SD= 1.285) show. Still, these results show that English language teachers have reasonable knowledge and skills to utilize and integrate ICT tools in teaching English with an overall mean and standard deviation for the first domain (M= 2.85; SD= 1.350) respectively.

Table (8): Means & Standard Deviations of the second domain

No	Items	Means	Standard Deviations
Obstacles related to infrastructure facilitties and cost			
18	Inability to depend on access to essential software (e.g. new versions of MS office, internet programs, adequate instructional material).	3.23	1.245
19	The number of computers is not enough compared to the number of students.	3.55	1.366
20	Availabe hardware(computers, printers, scanners, CDs, etc.) always breaks down.	3.24	1.310
21	The network connectivity is limited (slow and disconnects quickly).	3.81	1.227
22	Some ICT tools (internet, e-mail, e- learning systems) are not always reliable (unsafe because of hacker attack, viruses, and cable problems).	3.81	1.080
23	Available hardware is not sufficient to accommodate ICT supported teaching.	3.57	1.172
24	Available software (programs) is not sufficient to accommodate ICT supported teaching.	3.44	1.145
25	There are insufficient funds to purchase (buy and pay for) needed equipment or software.	3.58	1.268
26	Financial support alocated for the development of instructional materials of ICT tools is inadequate.	3.81	1.160
27	Financial support alocated for ICT integration in the classroom is not enough.	3.91	1.120
	Total	3.56	1.219

Table (8) presents the results of the second domain which deals with obstacles related to infrastructure facilities and cost. The results reveal a higher- level of

obstacles where all the items constitute high- level obstacles with a total mean (M= 3.56) and a standard deviation (SD= 1.219) except for item (18) (M= 3.23; SD= 1.245) and item (21) (M= 3.24; SD= 1.310). It is worth to note that items (26) (M= 3.81; SD= 1.160) and (27) (M=3.91; SD= 1.120) which ask teachers about financial problems score the highest means in this domain.

Table (9): Means & Standard Deviations of the third domain

No	Items	Mean	Standard Deviation
Obstacles related to teachers' ICT tranining(pre- service & in – service)			
28	My school does not provide enough training opportunities (programs, workshops, etc.) that target the use of technology in teaching English.	3.56	1.211
29	Technology training is offered at inconvenient times.	3.60	1.106
30	Generic technology training is irrelevant to teachers' needs.	3.33	1.255
31	There is limited training during in- service period (during work).	3.69	1.090
32	There is lack of training in pre-service period (at the university).	3.84	1.143
33	There are problems in getting quality-training programs.	3.88	.962
34	There are limited institutional training opportunities at my school.	3.84	1.017
	Total	3.68	1.112

Table (9) presents the results of the third domain which deals with training related obstacles in which English language teachers state that they encounter training problems whether during their study at the university or during their job as teachers. The total mean of the third domain is (M= 3.68) and standard deviation (SD= 1.112) which is relatively high. Only item (30) "Generic technology training is irrelevant to teachers' needs" with (M= 3.33; SD= 1.255) is viewed as

moderate- level obstacle within this domain. Results of this item are consistent with teachers' responses to item (33) that has the highest mean in the third domain (M= 3.88; SD= .962) and in which teachers report that they lack quality training courses. This implies that despite the fact that English language teachers agree that the generic training courses they receive by MoHE are relevent to them, they still need to get quality training courses as results of item (33) show.

Table (10): Means & Standard Deviations of the fourth domain

Obstacles related to time allotted			
No	**Items**	**Means**	**Standard Deviations**
35	The integration of ICT tools into teaching English requires too much of my class preparation time.	3.95	1.030
36	The use of ICT tools to communicate with my students(e.g. email, e-learning system, etc.) requires too much of my time.	3.76	1.181
37	The development of instruction(English language lessons) that uses technology requires too much of my time.	3.73	1.166
38	The integration of ICT tools (LCD, projector, e-mail, etc.) in teaching English causes me to spend extra time in covering the required material in the curriculum afterwards.	3.76	1.173
	Total	3.79	1.138

Table (10) presents the results of the fourth domain which points out time related obstacles. It shows that teachers encounter high-level of time- related obstacles with a total mean and standard deviation (M= 3.79; SD= 1.139). This indicates that time is highly appreciated by teachers especially that class time is strictly limited and teachers are required to finish a specific material within class time. Item (35) "The integration of technology into teaching requires too much of my class preparation time" scores the highest mean (M= 3.95; SD= 1.035) within this domain items and even among all the questionnaire items. Also results of item (36) (M=3.76; SD= 1.181) show that teachers point out that using ICT tools to

communicate with other teachers or students consume much of their time. This in turn means that teachers view using ICT tools as a high- level obstacle that causes delay in the teaching process instead of facilitating it. Results of item (37) (M= 3.73; SD= 1.166) show that teachers consider the time spent in developing materials using ICT as a high- level obstacle. By the same token, results of item (38) (M= 3.76; SD= 1.173) reveal that teachers view the integration of ICT tools in teaching English as a high- level obstacle since it requires teachers to spend more time in covering the material required in their textbooks after the ICT integration process.

Table (11): Means & Standard Deviations of the fifth domain

No	Obstacles related to administrative & technical support		
	Items	**Means**	**Standard Deviations**
39	There is little administrative support for the integration of technology into teaching.	3.60	1.158
40	There is lack of motivation from leadership for instructional use of technology.	3.54	1.101
41	There is little commitment from supervisors for instructional use of technology.	3.57	1.104
42	There is no continuous technical staff development to support the integration of technology into teaching.	3.73	1.044
43	There are limited materials on how to integrate ICT tools into teaching provided by the Ministry of Education.	3.69	1.098
44	The school administration does not provide any clear instructions on how to integrate ICT tools in my teaching.	3.56	1.203
45	The school administration does not provide any incentives (encouragement) for ICT integration in instruction.	3.38	1.221
46	The school administration does not provide any evaluation on the integration of ICT tools in teaching.	3.38	1.290
47	I have had difficulties getting support from technical staff at any time.	3.48	1.245
	Total	3.55	1.163

Table (11) presents the results of the fifth domain which deals with obstacles related to administrative and technical support. The results reveal high-level related obstacles with an overall mean and standard deviation (M= 3.55; SD= 1.231) respectively. Items of this domain uncover the passive roles of leadership, administrators, supervisors and technical staff in ICT integration in teaching English. A detailed analysis of the items of this domain indicates that teachers consider lack of administrative support as high- level obstacle as results of item (39) (M= 3.60; SD= 1.158) show. Furthermore, results of item (44) (M= 3.56; SD= 1.203) and item (45) (M= 3.38; SD= 1.221) and (46) (M= 3.38; SD= 1.290) reveal that teachers perceive lack of instructions, incentives and evaluation from the school administration as high- level obstacles. Likewise, results revealed by item (40) (M= 3.54; SD= 1.101) and item (41) (M= 3.57; SD= 1.104) show that lack of motivation from leadership and lack of commitment from supervisors constitute high- level obstacles to teachers. Responses to item (42) (M= 3.73; SD= 1.044) and (47) (M= 3.48; SD= 1.245) pinpoint that lack of continuous technical support and at any time they need it are high- level obstacle. Mean and standard deviation of item (43) (M= 3.69; SD= 1.098) illustrate that lack of materials provided by the Ministry of Education on the mechanism of integrating ICT tools in teaching English is viewed as a high- level obstacle.

4.1.3 Results of the Third Question

 To answer the third question statistically: Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their responses to the obstacles' presence due to gender, expertise (practical experience), and educational qualifications (degree)? three null hypotheses are tested:

First hypothesis: There are no statistically significant differences at (α≤0.05) in the means of teachers' responses to the obstacles' presence due to teachers' gender. To determine whether males and females differ in their responses to the obstacles' presence, Independent sample t-test is used.

Table (12): Independent Sample t-test results regarding the differences in the means of teachers' responses to the obstacles' presence due to gender

Gender	N	Mean	Std. Deviation	t	Df	Sig.
Male	97	3.38	.628	.648	219	.711
Female	124	3.32	.617	.647		

Table (12) presents independent sample t-test results where t- values for both males and females are (0.648) and (0.647) respectively and which are comparatively similar and (df= 219). In addition, the results show no statistically significant differences at ($\alpha \leq 0.05$) in teachers' responses to the obstacles presence due to teachers' gender where (Sig= 0.711) which is higher than (0.05). This in turn means accepting this hypothesis since teachers' gender does not affect the integration of ICT tools in the teaching practices.

Hypothesis two: There are no statistically significant differences at ($\alpha \leq 0.05$) in the means of teachers' responses to the obstacles' presence due to teachers' practical experience (expertise). To find out whether teachers differ in their responses to the obstacles' presence based on their practical experience; means, standard deviations and One-Way ANOVA are used as it appears in table (13).

Table (13): Means and Standard Deviations of teachers' responses according to teachers' practical experience

Variable (Group of experience)	F	Mean	Standard Deviation
less than a year	8	3.30	.45
1-5 years	49	3.31	.55
6-10 years	57	3.18	.60
11 years & above	107	3.46	.66
Total	221	3.35	.62

Table (13) shows the frequencies, means and standard deviations of the four levels of teachers' practical experience. To find out if there are significant statistical differences caused by any of the four levels, One- Way ANOVA is used as presented in table (14).

Table (14): One-Way ANOVA results that show group differences in teachers' responses to the obstacles' presence

Source of variance	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3.015	3	1.005	2.660	.049
Within Groups	81.972	217	.378		
Total	84.987	220			

As shown in table (14), the significance level equals (Sig= 0.049) which means the existence of significant statistical differences in teachers' responses to the obstacles' presence between groups due to teaching experience. This in turn means rejecting this hypothesis. To identify where exactly the significant differences exist, post-hoc analysis using the LSD test is used.

Table (15): Post hoc multiple comparisons between teachers based on the teaching experience

(I) Experience	(J) experience	Mean Difference (I-J)	Sig.
11 years & above	6-10 years	.27905*	.006

*the mean difference is significant at the 0.05 level.

Table (15) illustrates that the source of variance lies between teachers whose teaching experience exceeds 11 years and those whose teaching experience ranges from 6-10 years. The significance value (Sig=.006) which is less than (0.05) in favour of the teaching experience, 11 years & above. Which means that teachers

with greater years of experience, 11 years & above, are the source of variance in this study since they encounter more obstacles than teachers with less years of experience.

Hypothesis three: There are no statistically significant differences at (α≤0.05) in the means of teachers' responses to the obstacles' presence due to teachers' educational qualifications.

Table (16): Means and Standard Deviations according to teachers' educational qualifications (degree)

Educational Qualifications	F	Mean	Standard Deviation
Diploma	15	3.76	.75
BA	159	3.31	.58
BA+ Education diploma	33	3.48	.65
MA	14	3.02	.69
Total	221	3.35	.62

Table (16) shows the frequencies, means and standard deviations of the four levels of teachers' educational qualifications. To find out if there are significant statistical differences caused by any of the four levels, One- Way ANOVA is used as presented in table (17).

Table (17): One Way ANOVA results based on teachers' educational qualifications (degree)

	Sum of Squares	DF	Mean Square	F	Sig.
Between Groups	4.898	3	1.633	4.423	.005
Within Groups	80.089	217			
Total	84.987	220	.369		

Table (17) shows that (Sig= 0.005) which is less than (0.05), and therefore, there are significant statistical differences in the means of teachers' responses between holders of the degrees of Diploma, BA, BA+ Education Diploma, and MA. This in turn means rejecting this hypothesis. To find out the sources of variances, LSD post- hoc multiple comparisons are used.

Table (18): Post- hoc multiple comparisons between groups according to their educational qualifications

(I) eduquadeg	(J) eduquadeg	Mean Difference (I-J)	Std. Error	Sig.
Diploma	BA	.45339*	.16409	.006
	MA	.74498*	.22576	.001
BA+ Education Diploma	MA	.45975*	.19377	.019

*The mean difference is significant is at the 0.05 level.

Table (18) presents the results of the LSD post- hoc multiple comparisons. The results illustrate that the source of variance when comparing responses of diploma holders and those of BA holders is caused by diploma holders where (Sig= 0.006). Similarly, diploma holders are the source of variance compared with MA holders where (Sig= 0.001). By the same token, the comparison between BA+ Education diploma holders and the MA holders show that BA+ Education diploma holders are the source of variance with(Sig= 0.019). These results show that the lower the educational qualifications language teachers hold, the more obstacles they encounter when integrating ICT tools in their teaching practices.

4.1.4 Results of the Fourth Question

To examine the fourth question: Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their use of ICT tools according to:
a: the availability and accessibility of ICT resources in their schools,

b: the number of training courses they received pre- service i.e. at the university,

c: the number of ICT training courses they attended in- service i.e. provided by the Ministry of Education? statistically, frequencies and percentages are calculated for the items of the second part of the questionnaire that deals with ICT resources as it appears in table (19):

Table (19): Frequencies and percentages of ICT resources in Palestinian Public Schools

ICT resources	Not available (1)		Available but not accessible (2)		Available with limited access (3)		Available and easily accessible (4)	
	F	%	F	%	F	%	F	%
Computer labs	39	16.7%	44	19.9%	73	33%	65	29.4%
Internet connection	117	52.9%	41	18.6%	44	19.9%	19	8.6%
Technology support technicians	77	34.8%	55	24.9%	59	26.7%	30	13.6%
LCDs	45	20.4%	52	23.5%	65	29.4%	59	26.7%
Overhead projectors	22	10%	43	19.5%	69	31.2%	87	39.4%
Display screens	69	31.2%	48	21.7%	46	20.8%	58	26.2%
Printers	33	14.9%	21	9.5%	51	23.1%	116	52.5%
Scanners	90	40.7%	35	15.8%	55	24.9%	41	18.6%
Digital cameras	89	40.3%	44	19.9%	46	20.8%	42	19%
Videos	63	28.5%	53	24%	54	24.4%	51	23.1%
TVs	51	23.1%	51	23.1%	45	20.4%	74	33.5%
Tape recorders	34	15.4%	33	14.9%	35	15.8%	119	53.8%
Photocopying machines	18	8.1%	17	7.7%	40	18.1%	146	66.1%

Table (19) shows the level of availability and accessibility to ICT resources in Palestinian public schools. The results are presented in a descending order starting

with the most available ICT resource. The results reveal that the most available technological resource is photocopying machines. (66.1%) of schools include photocopying machines which English language teachers can use easily, and (18.1%) provides limited access to these machines. Still, some schools representing (7.7 %) do not have access to this basic facility or the rest of schools representing (8.1%) do not offer these machines. Other available technological tools are tape recorders. (53.8%) of schools offer tape recorders with easy access to English language teachers. Whereas, (15.8%) of schools have limited access to tape recorders and (14.9%) do not allow any access to tape recorders. This may be due to insufficient number of tape recorders since tape recorders are used in teaching more than one subject by more than one teacher at the same time. (15.4%) of English language teachers report that they do not have tape recorders at their schools. This result is unexpected because tape recorders are considered one of the cheapest traditional ICT tools that schools can avail for teachers. (52.5%) of schools offer easy access to printers. However, (23.1%) of the English language teachers respond that they have limited access to printers and (9.5%) report that they cannot use printers at schools. Surprisingly, (14.9%) of teachers state that their schools do not have printers which are considered basic requirements for simple administrative jobs. Overhead projectors, which are very common among teachers, only (39.4%) of English language teachers report that they have easy access to these tools when they want, (31.2%) of schools house overhead projectors but limit teachers' access to them. Moreover, (19.5%) of language teachers do not have access to the available overhead projectors at their schools. The last (10%) of language teachers do not have any. (33.5%) of schools have TVs with easy access, (20.4%) have limited access to TVs, and (46.2%) of schools provide no access to TVs.

Internet connection is the least available ICT resource among the other mentioned resources where (52.9%) of schools do not include internet. Moreover, (18.6%) have internet but is not open for teachers' use. This in turn means that (71.5%) of schools do not provide net for teachers to use. (19.9%) of the participants report that they have limited access to the internet, and only (8.6%) can easily use the

internet at their schools. This in turn means that only (28.5%) of schools provide English language teachers with internet connection. This in turn means that items which ask teachers about technological applications that require internet connection in the questionnaire can be applied only to schools that house internet connection in this study.

(40.3%) of schools do not possess cameras and (19.9%) do not allow teachers to use the available cameras at schools. Moreover, (20.8%) of schools offer limited access to cameras. Only (19%) of schools allow teachers to use available cameras easily. Similar results are recorded for the availability of scanners where (40.7%) of schools do not avail scanners for their teachers, (15.8%) allow no access to available scanners at schools, (24.9%) allow limited access to available scanners, (18.6%) of schools offer easy access to scanners. (34.8%) of participants that there are not technicians to support teachers when they need, (24.9%) participants do not get the technological support they need, (26.7%) of participants get limited technological support, and only (13.6%) offer the needed support when teachers require easily. (52.9%) do not have access to display screens, (20.8%) can use these screens with restrictions, and only (26.7%) can use screens to present their materials without restrictions. Closely related is the availability of LCDs at schools. Results show that (49.9%) of schools do not supply LCDs for their teachers, (29.4%) of schools limit teachers' use to the available ones. (26.7%) report that they have easy access to available LCDs. The most promising result is that (82.3%) of teachers report that their schools house computer labs whether teachers have access to or not. Only (16.7%) report that their schools have no computer labs at their schools.

In short, most schools avail some forms of technology. However, it is noticeable that modern forms of ICT are not available in sufficient numbers in most schools, and if schools avail some modern forms of ICT tools like the internet, for example, they are not easily open for teachers' use. These tools are very important for the application of ICT in schools and their availability is very important for teachers to cope with the technological advancements in this accelerating world in their careers as teachers.

To determine whether teachers differ in their utilization and integration of ICT according to the training they receive, frequencies and percentages are calculated for the number of courses teachers receive pre- service i.e. and the number of ICT training courses they attended in- service which the Ministry of Education provide them with.

Table (20): Frequencies and percentages of ICT training courses pre- service and in- service

Variable	Variable level	Frequency	Percentage
ICT training courses pre- service (at the university)	None	110	49.8%
	One	62	28.1%
	Two	25	11.3%
	Three	13	5.9%
	four or more	11	5.0%
ICT training courses in- service (during work)	None	81	36.7%
	One	66	29.9%
	Two	42	19.0%
	Three	18	8.1%
	four or more	14	6.3%

Table (20) shows that (110) teachers representing (49.8%) do not receive any training courses at the university which is nearly half the study sample. (62) teachers representing (28.1%) receive only one training course at the university. (25) teachers representing (11.3%) of teachers report that they receive two training courses. (13) teachers representing (5.9%) receive three training courses and (11) teachers representing (5%) state that they receive four training courses or more during their study at the university.

As for the training courses in- service , (81) teachers representing (36.7%) do not receive any training courses during their work to the Ministry of Education. (66) teachers representing (29.9%) receive one training course during their work,

(19.0%) report that they receive two training courses, (8.1%) receive three courses and (6.3%) receive four or more courses.

In short, the results indicate that the majority of teachers receive insufficient number of training courses during their preparation for their future careers as teachers. Moreover, despite the fact that teachers receive more training courses during work than those during studying, these courses are not enough based on the results given above.

4.2 Qualitative Data Analysis

To investigate ICT utilization and integration by English language teachers in Palestinian Public schools and the obstacles they face, interviews are conducted with 12 English language teachers from the districts of Ramallah & Al-Bireh, Hebron and Tulkarm. All the questions are asked to teachers in the same sequence, recorded then transcribed word by word in order to capture the exact words and phrases of the participants. Teachers are given numbers instead of names to ensure privacy and confidentiality. Seven major themes and nineteen sub- themes have emerged from the interviews as tabulated in table (21):

Table (21): Themes that have emerged from the interviews

No	Area	Themes
1	Perspectives towards ICT	- Negative perspectives towards the use of ICT in teaching English - Unwillingness to learn how to use ICT in teaching English
2	Skills, knowledge, and training	- Basic technological skills - Insufficient pedagogical knowledge - Insufficient training courses - Lack of quality training courses in Teaching English
3	Infrastructure facilities and cost	- Insufficient numbers of hardware at schools - Old versions of software and scarcity of programmed materials. - Lack of specified budgets allocated for technology matters in teaching English
4	ICT integrated activities and lessons	- Emphasis on administrative practices - Very few individual examples of ICT initiatives are conducted in teaching English - Preference for traditional teaching methods
5	Planning and Time	- Time consuming - Accidental planning
6	Administration, supervision , technical support	- Marginal role of principals in terms of evaluation, encouragement and incentives - No role of the supervisors in the ICT integration process -Insufficient technical support
	Palestinian electronic Initiatives	- Lack of knowledge about electronic initiatives in Palestine - Lack of attention from leadership

4.2.1   Perspectives Towards ICT

Two sub- themes resulted from asking teachers about their views towards ICT in their teaching practices. These show the negative perspectives towards ICT integration in teaching the English language, and the unwillingness to learn how to use ICT in teaching English.

4.2.1.1   Negative Perspectives Towards ICT Integration in Teaching English

Perspectives towards ICT are very important for this revolutionary change to be implemented. Teachers express varied views towards the use of technological tools in teaching English. The majority of the interviewed teachers, eleven teachers, have computers at their homes, but that does not mean that they are ready to use technology in their teaching practices. There is an agreement among teachers that technology can be used for personal purposes such as chatting with relatives or friends via messenger or Skype, or in their administrative practices. For instance, a male teacher says:

> *T 1: I am with using computers and the internet, but personally I use them for chatting or extra work, doing immediate translation on the internet, and not for teaching purposes.*

Another male teacher whose teaching experience is 14 years asserts:

> *T2: I do view technology positively because it saves time and effort, but not for the higher stages, and not to be used in the classroom, only in the administrative practices. It can be used for typing exams, worksheets, or even looking for information.*

Contradictory perspectives are revealed by two teachers whose teaching experience does not exceed 10 years. They express positive perceptions towards the use of technology in teaching particularly the English language because of the

many benefits ICTs may add to teaching and to learners. One of the teachers demonstrates:

> *T3: The use of ICT is encouraging and motivating for students. It facilitates my work as a teacher.*

Another teacher enthusiastically emphasizes the affinity between ICT and the English language as he says:

> *T7: You are talking about English not any other material. Teaching English using technology or other modern ways, the internet, computer is OK. Let students send their assignments via email and check them online. This opens new window for students' minds. Technology saves my time and reduces workload through using saved material, just adding some modifications to previous exams, worksheets, downloaded materials.*

4.2.1.2 Unwillingness to Learn how to Use ICT in Teaching English

The majority of teachers consider ICT utilization and integration in their teaching practices as difficult, extra and worthless burden that increase their workload and waste much of their time in learning how to use the new ICT tools. For example, a female teacher who has been teaching for 16 years explains:

> *T4: Surely, I am not with using technology in teaching! Why should I waste time learning? Technology causes embarrassment for me and I may fail. Time has gone for learning. I can use the tape recorder. Computer and its programs are very difficult for me. My children prepare the exams and worksheets I need for my work, and at school, the secretary or other teachers may help if they are not busy.*

Some teachers express their resistance to use new methods on the basis that they are not convinced of its importance or workability in teaching English. This unwillingness to learn new methods may be due to fear from failure while experimenting with new ICT tools at least in their teaching practices especially old teachers who have learnt the material by heart. Moreover, the overly

condensed syllabuses mainly in the higher stage, as teachers complain, makes finishing the required material in due time a priority over presenting that material using new methods. In agreement with the above viewpoint, a male teacher elaborates:

> *T8: In my point of view, I prefer the old methods of teaching because I do not like to use technology or other things in teaching because this technology use in the classroom violates the educational process. I am one of the teachers who does not like to use technology in teaching. I think that technology will affect the teaching process negatively. I prefer the inductive and deductive ways, the rules which are inside the minds of the students.*

These negative perspectives towards ICT and unwillingness to learn how to use ICT tools by English language teachers are closely related. The quantitative results of the first question. reveal that approximately half of the English language teachers (F=152) do not use ICT or their use of ICT tools does not exceed (25%).

4.2.2 Skills, Knowledge and Training

Four sub themes resulted from participants' answers regarding the background knowledge and the skills teachers possess.

4.2.2.1 Basic Technological Skills

Most of the participants report that they can use Word, Power Point and Excel and they can perform basic computer demands such as save, copy, paste which are required for their use basically when using MS Word to type their exams, or excel to calculate marks or to prepare Power Point presentations for classroom use. It is apparent that teachers possess basic computer skills which enable them to carry out the administrative requirements of their job as teachers especially that teachers nowadays have to prepare their exams, worksheets, students' files on computers since the Directorate of Education provide them with generic training courses on the use of Microsoft office to handle their administrative works by themselves. Moreover, eight teachers out the twelve teachers report that they possess advanced skills such as using email, messenger, Skype, YouTube, Real

Player, surfing the internet and downloading enrichment materials related to their subjects. One of the teachers demonstrates:

> *T6: I can use word, excel, PowerPoint, email, internet to download different kinds of enrichment materials, worksheets, exams from previous years in different areas. Also I can use messenger, search engines like Google and Yahoo to look for information and what other schools and teachers give their students in other cities in the West Bank, we want our students to be distinctive as they used to.*

Noticeably, results of the first domain of the questionnaire which investigate obstacles that deal with the technological skills teachers possess confirm the interviewees' responses reflecting an ascending order. Means of the responses to the items that ask about basic computer skills start with a low mean for item (1) (M=1.99) and only score a high- level mean for item (17) that asks about advanced skills (M=3.42).

To comment on, this ability to use different technological tools by some English language teachers may be due to the absence of the language barrier comparably with teachers in other subject areas. However, does the possession of different skills mean having the pedagogical knowledge required to integrate ICT tools in the teaching practices? The second sub theme may illustrate this point.

4.2.2.2 Insufficient Pedagogical Knowledge

Having reasonable technological skills may help teachers to handle several administrative works. However, the implementation of these tools in teaching English in the classroom requires something more, which is pedagogical knowledge. This pedagogical knowledge will facilitate teachers' job and enable them to present the subject area in a way that confines their roles to facilitators and leaders of the teaching process where learners construct their knowledge in an interactive social setting. Teachers respond that they lack the specialized knowledge required for successful integration of technological tools in Teaching English. One of the teachers states:

T5: I think that I have the knowledge how to use ICT outside the classroom. However, inside the classroom it is much more difficult because it mainly depends on you as a teacher and how willing you are to develop yourself professionally. Also this is the first year we deal with such a thing in teaching. Maybe in the coming years when integrating more lessons, we can handle ICT integrated lessons better and be more trained.

Another teacher adds:

T12: I do not know how to apply technology tools to teaching; I do not have an idea. We need more to learn about these techniques.

Teachers' responses to the questionnaire items that ask about background knowledge (items 13, 14, 16) point out that teachers possess moderate knowledge with means (M= 3.19; M= 3.21; M= 3.29) respectively. However, it is not clear whether this knowledge teachers think they possess is the specialized pedagogical knowledge required for the successful integration of ICT tools in teaching English or not. Therefore, the in-depth questions addressed to the interviewees deeply delve into this subject and uncover the need for the acquisition of how to effectively integrate ICT tools in relation to the language skill or area they are going to teach.

4.2.2.3 Insufficient Training Courses

The third sub theme is related to training without which the integration process will be only a kind of trial and error. Most of the interviewed teachers reveal that they do not receive any training courses whether at the university or during work and that they taught themselves because technology is a necessity nowadays. This is the point of view of senior teachers who in some cases refuse to get training courses because there are not a lot of years left to train for, and in other cases, they reveal that they have never received any training courses officially. A teacher who has been teaching for twenty- four years clarified:

T 1: I did not receive any training courses neither INTEL nor any general training courses. I taught myself how to use the computer fairly enough to do my job or satisfy my personal needs. The

Directorate of Education has never addressed any training courses to any of the schools I worked in. and even they remembered now, I will not go. For what?

However, training makes a big difference for teachers who received it as pointed out in this teacher's words:

T3: We took training sessions with MSN (face to face) in Ramallah and the learning circle is here in our village. They opened a hall here. Trainers clarify things related to the syllabus and we share experience between the teachers and develop them or we make teaching aids, we discuss teaching theories, critical thinking, we discuss how we presented the material in class. We are 10. They gave sites on the net to go through. They are really motivating for us and for students.

It that is worth raising that the majority of the twelve interviewed teachers point out that they have not received training courses at the university. However, five teachers state that they have received training courses addressed from the Directorate of Education. To comment on, it may be a coincidence that most of the interviewed teachers did not receive any training courses at the university and minority of them have attended courses during work since they are only twelve. However, this result may be justifiable with reference to the quantitative results which show that (110) teachers out of (221) teachers have not received any training courses at the university and (81) teachers have not received any during work.

4.2.2.4   Lack of Quality Training Courses

Participants' responses indicate that they lack quality-training courses in terms of the content of these courses and the trainers who give teachers those courses. Teachers explain that most of these courses are generic courses that aim at equipping teachers with general computer skills required for administrative tasks, but not in teaching English.

T5: From the Directorate of Education, I got a general course about the basic things in the computer, INTEL, word, excel, Power Point.

Three teachers state that they have received training courses with non-governmental organizations such as Maa' agency, Amid East in projects like 'Waler' and the MSN (Model School Net) in collaboration with the Directorate of Education, and which aim at involving teachers in projects that may aid the reform plan proposed by MoHE . It is worth to note that teachers who attend such courses are more positive in their responses and more willing to use ICT tools in the teaching process. However, they request much more specialized training courses particularly in teaching the English skills and areas because this is essential for their professional development.

> *T 2: I received training at Maa' Agency " about the general basic ICT skills including the overhead projector.*
>
> *T3:I received training in the Amid East, The MSN project. General skills to use computers inside the classroom, but not specifically in teaching English.*
>
> *T6: I took a course "sharing experiences with other countries called "Wlar' in English, science and maths.*

Moreover, teachers complain that they have received these training courses by unqualified instructors, either the technology teacher or supervisor or one of the teachers who has been trained before.

> *T6: The instructors lack experience, they do not satisfy my needs, they do not take into consideration that you are an English language teacher, they just give general skills. Teachers and a supervisor give us these courses and they are not qualified. We need to keep up with the technology. They do not add much quality to my teaching.*

The above results come in accordance with the results of the third domain of the questionnaire which deals with training. The responses reveal high- level obstacles with a total mean (M= 3.68) and standard deviation (SD= 1.112). Moreover, there is a great emphasis on the absence of quality in training as item (33) shows with a mean (M= 3. 88).

4.2.3 Infrastructure Facilities and Cost

Three sub-themes result from this area. Teachers' responses point out that the availability of ICT tools in schools depend largely on the local community and the donation from other organizations or countries because there is a specified budget for each school as some teachers express, and which cannot tackle buying lots of new equipments and materials. To illustrate this point, some teachers disclose:

> *T2:Our village is rich. We do not have problems. The local council provides us with laptops, printers and whatever we ask for. They're in the United States. They want to do something for their village and the principal does not ask if I used the photocopying machines, printers or whatever.*

> *T6: This is an ideal school that has everything which may support teaching and learning using technology. There is a computer lab about 37 laptops. I think they are a donation from another country.*

4.2.3.1 Insufficient Numbers of Hardware at Schools

Almost all schools have one computer lab with varying numbers of computers (13- 30). This indicates that only one teacher at a time can use the computer lab and mainly the technology teacher. Similarly, other ICT tools such as LCDs, TVs, cameras, OHPs, display screens, photocopying machines and printers also, if available, are available in insufficient numbers in comparison with the numbers of teachers who want to use them and are not accessible whenever teachers want to use them. Moreover, the majority of teachers report that their schools lack the internet and if present, mainly in the secretary or principals room.

> *T 12:I spent hours last week preparing the power point slides. However, the technology teacher wanted to use the computer lab which is basically availed for her use and its responsibility falls upon her as she says.*

Results of the second part of the questionnaire that deals with the availability and accessibility to ICT resources reveal similar results but with more specific

numbers and percentages. A shared point between the two types of results is that both of them confirm that the traditional forms of ICT are the prevailing existent forms at schools. Whereas, schools lack modern forms of technology.

4.2.3.2 Old Versions of Software and Scarcity of Programmed Materials Provided by the Directorate of Education

Many teachers complain that old versions of software are installed on the school computers which means that lots of programs cannot be downloaded or opened if saved on newer versions at teachers' homes. This in turn causes frustration and dissatisfaction to some teachers since they have spent a lot of time and effort preparing for these lessons.

> *T7: It happened many times. In unit six for the tenth grade, I downloaded a YouTube about natural disasters to let students elicit the differences between hurricanes and tornadoes through exposing them to authentic live material, however, the YouTube did not open,. Another time, I wanted to show eighth graders a film about the solar system using my laptop this time, but the LCD did not operate on my laptop, too. I prepared many lessons and was not able to present them because of such problems.*

The majority of teachers also reveal that they receive very few programmed materials from the Directorate of Education that may help them in their teaching. Teachers also report that they do not receive ready forms that facilitate their administrative works. One of the participants asserts:

> *T10: I received some computerized materials from the Directorate of Education, Silas Marner for the 11ᵗʰ grade, but I do not use it. In addition to the audio tapes that accompany the English curricula for all the classes.*

Responses to items (22, 23, 24) of the second domain of the questionnaire reveal high- level obstacles with means (M= 3.81; M= 3.57; M= 3.44) respectively. These results are in turn consistent with the above result with more elaboration on

how the available hardware and software do not support the teaching process or are sufficient to accommodate ICT supported teaching.

4.2.3.3 Lack of Specified Budgets Allocated for Technology Matters in Teaching

Many teachers complain that there are restrictions on the use of the several ICT tools because of financial matters. At the beginning of every academic year, teachers are required to specify the teaching aids and materials they may need in teaching. However, this specification does not mean that the school is able to provide what teachers ask for because the budget is not enough. For instance, teachers reveal that they are not allowed to use printers or photocopying machines at any time they want.

> *T7: I always prepare worksheets and daily exams on the computer to save time instead of writing on the board and give chance for students to cheat while I am giving them my back to write. However, the principal refuses to sign because only midterm and final should be photocopied. Where will we bring ink and paper from? Also the secretary refuses to use her computer to print out my exams in fear of viruses if the technology teachers is not at school because she has the key.*

This result is closely related to items (25, 26, 27) of the second domain of the questionnaire that ask about the financial issues and reveal high- level obstacles with means (M= 3.58; M= 3.81; M= 3.91) respectively.

4.2.4 ICT Integrated Activities and Lessons

To find out the extent to which teachers use ICT in teaching, teachers are asked about activities and lessons in which they use ICT. Three themes resulted from their responses.

4.2.4.1 Emphasis on Administrative Practices

Teachers reveal that their main use of ICT centers on administrative tasks. This may be due to the fact that administrative tasks are easy technical tasks that only require basic skills that teachers can only modify or get help from others.

> *T1: I do not use technology in the classroom. Outside the classroom, I prepare my exams, worksheet, annual lesson plans and I use the internet to search for information, references, and available worksheets on the internet*

4.2.4.2 Very Few Individual Examples of ICT Initiatives are Conducted in Teaching English

Integrating ICT tools in teaching the different language skills or areas is a complex process which requires skills, knowledge, and preparation on the part of teachers. The majority of the teachers state that either they do not use ICT in teaching English or they use the tape recorder to teach listening and so capture the correct pronunciation of native speakers as heard from the tape.

However, some innovative teachers experiment with teaching English using different ICT tools such as the email to send language assignments and their corrections to students, Power Point presentations and YouTube which they present via the LCD. Teaching English using ICT tools and in which they are able to teach the four language skills integratively following the modern methods of teaching. This is because when English language teachers use YouTube movies downloaded from the internet to teach a comprehension text about natural disasters, for example, and present those movies to students with sound and pictures via the LCD, more than one sense is provoked and more than one skill can be taught at the same time. Thus, students can listen to language from an authentic source, then they can discuss what they watched realistically with each other in pairs or in groups and with the teacher, and then they can write about the subject presented. Finally, students can read what they wrote. English language teachers illustrate that using ICT in teaching English relates meaning to context

and brings life to the classrooms which motivates the students even the weakest ones to take part in that lesson. Here are two examples of teachers' use of ICT in teaching English. The first example is for a female teacher who has been teaching for 9 years and the second is for a male teacher who has been teaching for 3 years:

> *T5: We applied technology to teaching three times this course. I applied this to teaching comprehension and it was really beneficial because it showed students the comprehension text about the Bermuda triangle making use of video. To tell them the location we used a map downloaded from the internet accompanied by short videos for scientists talking about mysterious things and then ask students to give their opinions. Students typed on the computer for 3-4 minutes. I felt that was good, but not all the time. Nothing replaces the board. Despite the fact that using ICT is realistic and interesting.*

> *T9: In the last year, I tried something new for the students and they liked it. I asked them to send me their assignment to my email and I checked the assignments and sent back the corrections to students' emails. They were happy actually, they're good at using the internet and face book they are excellent. I used the LCD four times and the overhead projector, the cassette for listening, always, and I used the LCD to show them a historical text with pictures accompanied by sound, audio- visual aid, also I use word for typing my exams, worksheets and also excel for preparing midterm and final exam analysis and also I can use PowerPoint, but for my personal use and not related to teaching.*

It can be inferred from the above examples and from teachers' responses that some teachers would like to use ICT in teaching but partially and as a helping aid. Moreover, younger teachers are more willing to change their ways of teaching and use ICT tools regardless of their gender. This is consistent with the quantitative results which show no significant statistical differences in teachers' responses due to teachers' gender, but there are significant statistical differences due to the teaching experience. This in turn means that we are living in an accelerating world which is affected by the growing changes outside our fields of work and requires us among other things to integrate more than one aspect to develop in our professions and not to standstill to what we have learnt in the past.

This may cause a great burden to senior teachers who refuse change and need to start learning new things again.

4.2.4.3 Preference for Traditional Teaching Methods

The results show that research participants favour traditional methods of teaching. This is not only because of the age variable as clarified in the previous point, but for their easiness as teachers report and their ability to help teachers to finish the required material on time. Teachers do not have to prepare the computer lab, or ask for help from others, or prepare alternative solutions if any problems happen, technical or non- technical. Teachers consider these methods exhausting and demanding in comparison with the blackboard. A female teacher who has been teaching for 23 years clarifies:

> *T10: I studied master in linguistics in the US, and I can give courses in computers. However, I'd prefer the board and the textbook to underline each word. I want my students to succeed and this could not be achieved through wasting class time in experimenting with technology in the class. Students should have their right in receiving knowledge.*

Other novice teachers consider the use of technology in teaching a violation of the educational process because of their fear from the unreliable information that learners may be subjected to on the internet or because technology may cause political problems. One of the teachers refuses to conduct the interview only because he hears that it deals with technology despite the fact that he has an MA degree and teaches in colleges and universities. His principal discloses that he still uses the old typewriters to prepare basic annual exams and the rest are handwritten.

4.2.5 Time and Planning

Time is an indispensable variable in ICT utilization and integration which is closely related to planning and affects the integration process. Two sub themes resulted from this area.

4.2.5.1 Time Consuming

Research results convey diverse views concerning time. Most teachers consider the use of ICT in teaching as time consuming especially those who lack technical skills. According to them, they need a lot of time to prepare the computer lab and operate the LCD. Furthermore, lack of pedagogical knowledge cause them not to cover the required material within the class time. Consequently, the lesson that is supposed to end in one class requires three classes. This is pointed out by more than one teacher.

> *T9: During the class, time because we do not have a specialized room, using technological tools wastes a lot of time, our classes are only 40 minutes and preparing things will take a lot of time especially we do not have a specialized room.*

Another teacher raises the problem of keeping the students under control during the ICT class especially if the internet is available. Besides, technical problems always cause delays in time even with trained teachers such as slow internet connection. This point can be clarified in the teachers' words:

> *T10: Time consuming in seating the students, controlling them because they will only talk and laugh. It is all not worthy and it is a waste of time because we will not be able to finish the required material on time, and you know that we sign an official document every year to finish the required material within a specific plan and limited time.*

> *T11: I think technology requires a lot of the class time. We need a lot of time operating the technology tools, or calling for help from the technology teacher if not successful in working with these tools as required*

Sometimes the use of ICT can save time as some teachers say. However, this is dependent on the lesson's nature and the students' abilities.

> *T5: Using technology inside the classroom depends on the students' ability and the kind of material presented. Some areas require a lot of time and the lesson may take three classes to achieve its goals because you know that the environment in our*

> *schools is not ready yet for using technology effectively and for some kind of material it is a waste of time. Outside the classroom, using technology saves a lot of our time whether for searching for newer information, or saving documents.*

To further stress the importance of time, reference to quantitative results show that time is viewed as high- level obstacle by scoring the highest mean of all the questionnaire domains (M= 3.79; SD= 1.138). This in turn means that greater emphasis should be placed on how teachers can use their time effectively which can only happen through training.

4.2.5.2   Accidental Planning

One of the frequent complaints of teachers is planning because of the time they consume in planning and preparing the material for presentation. This may be justified because teachers are required to prepare manually their daily lessons, and so to prepare annual plans to finish the materials by the end of the academic year, and to prepare for the integration of ICT in teaching in addition to the administrative works required. It is undeniable that this way of planning places greater demands on teachers and causes them to underestimate the importance of planning and skip it in many cases as a teacher who has been teaching for 14 years says:

> *T2: I do not plan and I do not know the shape of the preparation notebook. We are only subject to experiments. All of them want to impose their rules on teachers. We are moving towards being writing machines only. We have minds and the future of education needs something more than just to prove that we are working. Documented planning does not mean that we are qualified teachers .Mental planning is much more important.*

The results show that teachers use some ICT tools accidentally according to the situation especially if they have technical skills. They use such tools if the principal or the supervisor comes to school to show that they vary their teaching aids and techniques. A teacher states:

T5: This way the idea may come accidentally and we can try it in class and accidentally I discovered that this makes a big change for me.

Only four teachers say that they plan activities or lessons in which they use ICT in their classrooms daily and annually because success of such lessons depends mainly on preparation and readiness on the part of the teachers. However, they strongly emphasize the interrelationship between planning and time as teachers explain:

T3: Yes, I plan for ICT lessons, but this takes time to surf the net, to download material and to decide which material is suitable.

T6: Yes, I plan for every step, otherwise it will not succeed daily and annually.

Items (35 & 37) that ask teachers about preparation for ICT integration score high- level means which are (M= 3.95; M= 3.73) respectively and which are consistent with the interviewees' responses regarding planning. However, qualitative results clarify that time and planning are interrelated and the success of lessons using ICT tools depends mainly on good planning daily and annually. If teachers really succeed in planning the ICT lesson, this lesson undoubtedly will achieve its intended outcomes, and if teachers can plan the use of ICT lessons, this means that they can cover the material required within the academic year. However, this presumption provokes this query: Given the current circumstances above, how can English language teachers integrate ICT tools in teaching?

4.2.6 Administration, Supervision and Technical Support

The analysis of the interview data indicates that three themes have emerged. These are: marginal role of principals in terms of evaluation, encouragement and incentives; no role of the supervisors in the integration process; insufficient technical support.

4.2.6.1   Marginal Role of Principals in Terms of Evaluation, Encouragement and Incentives

The results show that principals encourage teachers' use of technological tools, however, this encouragement is confined to words, and in some cases principals include these attempts in teachers' reports which do not affect teachers' yearly annual evaluation since very few teachers receive the "excellent" evaluation at the end of the year. Moreover, all teachers report that they have never received any kind of tangible rewards or incentives that they expect for their performance. For principals, it does not make a difference to use the advanced applications of the net or the tape recorder since both of them are forms of technology as a teacher who taught in four different schools for 16 years states.

> *T4:   They do not have any role. Just only they need to fill their*
> *report and the tape recorder will make them very happy if used*
> *properly.*
> *.*

Another teacher illustrates how much frustrating the situation will be if teachers' efforts are not rewarded as expected. This can be clearly clarified in the words of a teacher who has been teaching only for four years:

> *T7: What kind of encouragement do you mean? Several times I*
> *prepared lessons to be presented in class and I asked the principal*
> *to come and he did not come because he is busy or because he*
> *does not attend the first or the last classes. Once we had internet at*
> *school and I prepared a lesson about the information age for the*
> *eleventh grade and I asked the principal to attend it but no. The*
> *lesson was really interesting and brought life. He did not come. I*
> *really did not want to spend hours surfing the net for material and*
> *worksheets and at the end similar to other teachers who only use*
> *the board, my yearly evaluation is only good or very good. We*
> *want something tangible that encourages us to upgrade the*
> *teaching process. But "no comment".*

It is worth noting that lack of incentives causes frustration as expressed by teachers who really think themselves receiving a reward for their job as a teacher says:

T3: They gave each of the ten teachers a mini laptop and we thought it was for us. However, we discovered later that these laptops were for us only during our work period with MSN, then it will be a school property.

The importance of principals' role in supporting ICT integration is also stressed by teachers' responses to items (39, 44, 45, 46) which score high means (M= 3.60;   M= 3.56; M= 3.38; M= 3.38) respectively.

4.2.6.2 No Role of the Supervisors in the ICT Integration Process

The role of the supervisors does not differ greatly from that of principals. On the contrary, it is more passive because principals are present all the time and are the ones in charge who can have positive effects on teachers in terms of availing ICT resources or reports. However, supervisors only come one or two times a year, and sometimes they do not visit teachers within the whole year and reports are written. Furthermore, supervisors ask teachers to use technology in teaching and to vary their means in teaching. However, teachers reveal that supervisors do not provide them with the mechanism of how to use technology in teaching. Moreover, supervisors do not evaluate greatly teachers' efforts as teachers expect. For example, a teacher reports:

T6: The supervisor's support varies according to the supervisor himself. They support the use of technology. Just words. Some may praise being innovative and include this in your report, others no. It depends.

Another teacher says:

T7: The supervisors do not encourage us to use ICT. When the supervisor visited me last year, I was very enthusiastic to present the comprehension text that I downloaded from the internet because I considered it more realistic with pictures and big screens. I thought she would appreciate my job, instead she said, "Do you think this is a use of technology. I am professional in computers." and she even refused to accept the soft copies of enrichment materials saved on the computer despite the fact that I classified them according to classes in folders and she only preferred printed papers and the textbook. She did not tell me what professional use is.

This result comes in accordance with teachers' responses to item (41) of the questionnaire. Teachers' responses reveal that the little commitment of supervisors towards the inclusion of ICT in teaching constitutes a high- level obstacle for them with a mean (M= 3.57). To finalize the previous point, supervisors' role entails, among other things, clarification of how technology can be used in the classroom to teach a certain skill or area and being more positive when commenting on teachers' initiatives if mistakes happen.

4.2.6.3 Insufficient Technical Support

Eight of the interviewed teachers assert that they need technical support when they want to use the computer lab or any other technological tools to teach a certain skill or area. Furthermore, teachers point that the only technical support they can get is that from the technology teacher who is freed for six classes per week in order to hold technical matters that other teachers may need. However, this help offered by the technology teacher to teachers nowadays is optional and technology teachers are not obliged to help if they do not want to because they have their own workload as this teachers points:.

> *T6: The most important for me is getting technical support because*
> *I cannot use, for example, the LCD alone. Still I need help to*
> *download material and lessons from the internet.*

Moreover, five teachers disclose that technology teachers, in addition to their being uncooperative, they are not able to solve all the problems teachers face such as viruses or hackers' attacks. This in turn means that these teachers are not qualified enough to provide this help and that there should be a technician who can solve whatever problems happen.

Responses to items (42 & 47) of the questionnaire show high accordance with the interviewees' responses regarding lack of technical support. Results of both items score high- level means (M= 3.73; M= 3.48) respectively.

4.2.7 Palestinian Electronic Initiatives

Despite the fact that work with foreign countries has taken place since 2005 in the Palestinian initiative, Towards Electronic Palestine, results clarify that most teachers other than those who are involved in that project or other projects aiming at moving towards advanced electronic country like other countries in the world, lack complete knowledge of what such projects are. Analyzing teachers responses to this question, two sub- themes have emerged.

4.2.7.1 Lack of Knowledge about Electronic Initiatives in Palestine

The results show that the majority of teachers lack awareness and knowledge about ICT initiatives in Palestine except those who attend some training sessions in projects such as the "MSN" with the AmidEast or "Walr". Most English language teachers lack the awareness about the different ICT initiatives that are set by the Ministry of Education and Higher Education (MoHE) in Palestinian Public schools, and the efforts towards turning the Education system in Palestine into an electronic one as a part of the MoHE's strategic plan (2008- 2012). And since English is one of the three subjects that the Ministry of Education plans to use ICT in its primary stages (MoHE, 2008), it is essential for these teachers to be informed of what such initiatives demand from them and likewise offer to them. Such unawareness in turn is considered an obstacle to English language teachers and causes many teachers to adhere to the traditional methods of teaching considering the use of ICT in teaching an ornamental decorative matter. The majority of English language teachers consider the use of any form of technology optional. One of the participants, who has been teaching for 24 years in many schools assures this point showing great astonishment:

> *T1: I do not have any idea about the Palestinian initiative or any other project that calls for electronic learning or using ICT in teaching "Was this set here for our schools in Palestine!"*

4.2.7.2 Lack of Attention from Leadership

Five of the interviewed teachers express their dissatisfaction because they are ignored and even excluded from participation in such projects mainly in the districts of Tulkarm and Hebron. This is because these teachers consider themselves as qualified and competent but they lack opportunities like these to show their abilities and to enhance the teaching process. This can be clarified in one of the participants' words:

> *T6: I have no idea about it. I wish that we have such initiatives because we are excluded here from such projects despite the fact that we have qualified people who are willing to work persistently. Last week, we went to a conference in Nablus and we met with a person from the Ministry of Education who assured us that books are going to be modified and computerized at least from the first to the fourth grades.*

To elaborate the previous point, some teachers who have received training in some projects convey their satisfaction and willingness to participate in more projects because of the great change and progress such projects make. However, other teachers view their absence from such projects a kind of ignorance and marginalization from administration and a stone in the route of their professional development. This is pointed in this teacher's words:

> *T10: I think if I knew before about such projects and their importance for the Ministry's educational plans, I would change. But we are ignored here, and only the focus is Ramallah.*

Results of the fifth domain of the questionnaire that deal with obstacles related to administrative matters represented by leadership, principals, supervisors and technical staff reveal high- level obstacles with a total mean (M= 3.55). This result pinpoints the crucial role that each party should play in ICT integration.

4.3 Summary of the Quantitative Results

Results of the first question show that the extent of English language teachers' use of ICT tools is relatively low. In addition, the results reveal that English language

teachers mainly use ICT tools in the receptive skills, listening (42.1%) and then reading (19.5%) more than in the productive skills, speaking (13.1%) and then writing (11.3%). Besides, teachers mainly focus on the areas of pronunciation (29%) in the first place, then on grammar (22.6%) and after that on vocabulary (19.9%) giving little emphasis to spelling (9%) and dictation (4.5%).

Results of the second question point out that teachers encounter high- level obstacles in all domains except for the first domain which investigates obstacles dealing with teachers' background information and technological skills with a total mean and standard deviation (M= 3.59; SD= 1.231).

 Results of the third question reveal that there are no statistically significant differences in the means of teachers' responses to the obstacles presence between males and females according to Independent sample t-test results. However, the One Way ANOVA results disclose that there are statistically significant differences according to teachers' practical experience between teachers whose teaching experience ranges from (6-10 years) and those whose teaching experience exceeded 11 years in favour of teachers whose teaching experience exceed 11 years. This means that the more the teaching experience of English language teachers is, the less ICT integration is carried out. Furthermore, examining the differences in teachers' responses according to the teaching qualifications they hold, it is found that there are statistically significant differences between the holders of various educational qualifications. Interestingly, the Post Hoc multiple comparisons point out that the higher degrees teachers hold, the more ICT integration is carried out.

Results of the fourth question uncover that Palestinian schools provide some kinds of ICT tools. However, the results uncover that most the ICT tools that prevail in schools are old and traditional ones which break down easily and require maintenance on the hand; on the other hand, they are available in insufficient numbers and are not accessible to teachers' use most of the time as teachers confirm. The final predictor that the questionnaire investigates is the training courses that teachers receive pre- service and in- service. The results

reveal lack of training courses either at the university or during work. However, greater numbers of teachers are not trained at the university how to integrate ICT tools in their teaching practices as a prerequisite for their professional development in the modern era. The results also disclose that despite the fact that teachers receive training during their work with the Ministry of Education, the training teachers receive is mainly generic that aims at training teachers to use the simple traditional ICT tools such as overhead projectors or basic computer skills that enable teachers to carry out at least their administrative works.

4.4 Summary of Qualitative Results

The qualitative analysis results in seven main themes and nineteen sub- themes in which teachers reveal the extent of their use of ICT in their teaching practices and the obstacles towards this integration. The results show that most English language teachers' attempts to integrate ICT tools in teaching are mainly individual examples that lack support and encouragement. Teachers view the use of ICT in the teaching practices as ornamental burden that requires them to spend extra time in learning how to use technological tools. Moreover, the interviews illustrate the obstacles that teachers encounter during the process of ICT integration.

Teachers' age is a great determiner of teachers' willingness to learn how to use the new technologies in teaching. The older the teachers are, the more resistant to change they are. Teachers view time as a main obstacle in addition to different kinds of obstacles such as insufficient pedagogical knowledge, lack of technological skills, insufficient numbers of training courses, lack of quality training courses, insufficient infrastructure facilities required for the implementation of ICT in schools, especially the internet, marginal role of the school administration and supervisors, lack of awareness of the Palestinian electronic initiatives that the Ministry of Education and Higher Education has launched in (2005).

4.5 Relation between Quantitative and Qualitative Results

One of the main goals of the researcher's choice of the mixed research method to achieve the study' goals is to gain better understanding of the dilemma under investigation from more than one source of data collection which are the questionnaire and the interview. The results reveal a great affinity between both types of results in several domains despite the fact that some quantitative results may contradict the qualitative ones. However, this may be called clarification of the points under investigation rather than contradiction because of the broadness of the subject of ICT which may cause misunderstanding of some points.

For example, this can mainly be seen in relation to ICT pedagogical information required by teachers to implement the different ICT tools in the teaching practices. Quantitative results come out with the result that teachers possess moderate background knowledge and technological skills scoring the lowest mean among the other domains of the questionnaire that is (M= 2.88). Whereas, qualitative results show that although the interviewees possess basic computer skills, they complain that they lack the pedagogical knowledge required for implementing ICT tools inside the classroom. Teachers point out that their focal use of technological tools center around administrative tasks outside the classrooms.

The two instruments are conducted concurrently. The interview affirms the questionnaire results and elaborates most of the points that may cause misunderstanding to the researcher or the reader. For example, administrative roles of leadership, principals, supervisors and technical staff are assigned some points in the questionnaire. However, the in-depth questions addressed to the interviewees give us better understanding of this area and mainly spreading awareness about the ICT initiatives that actually happen on the ground in Palestine.

CHAPTER FIVE

DISCUSSION AND RECOMMENDATIONS

5.0 Discussion of the Findings

The current study is carried out to investigate the obstacles to ICT utilization and integration in Palestinian Public Schools from English language teachers' perspectives. In addition to shedding light on the current situation of ICT utilization and integration in teaching in Palestinian Public schools. To meet the study goals, data was collected through two instruments, a questionnaire and an in- depth interview, that were administered to a chosen sample of English language teachers from the districts of Ramallah & Al-Bireh, Tulkarm and Hebron. The following is a discussion of the findings in light of the study questions.

5.1 Discussion of the First Question Results

To what extent do English language teachers of the 10th, 11th, and 12th grades use ICT tools in their teaching practice?

To answer this question statistically, frequencies and percentages are calculated for the predictors: the percentage of classes English language teachers use ICT in per week, the language skill they use ICT tools in most, the language area they use ICT tools in most. Then teachers' responses to the related interview questions are analyzed. The results uncover that the percentage of English language teachers' use of ICT is very little, either none or less than (25%) per week. Similarly, qualitative results reveal that English language teachers' use of ICT in administrative tasks exceeds that in teaching English. Moreover, the results point out that the extent of English language teachers' utilization and integration of ICT tools is relatively low and are mainly individual attempts that lack the sufficient pedagogical knowledge required as a basis for ICT integration in the classroom.

These results are consistent with Hurd (2009) who presents the results of several case studies over twenty years in the UK. These results point out teachers' meager use of ICT in teaching over the years.

Despite the fact that some teachers are still unwilling to learn how to use the new ICT tools in teaching English because the use of these tools affect their coverage of the materials required within the academic year, there are innovative teachers who do really use ICT tools and are willing to learn because ICT tools, mainly the internet as they indicate, reduce teachers' workload and save their time through the flexibility ICT tools offer in teaching. Such teachers view the change offered by ICT tools in teaching language positively. This goes in accordance with Rogers (1995) theorization in which he considers that one's persuasion of the attributes of an innovation as superior to the previous methods is the first step in the adoption of change in teaching.

Another point the results show is that teachers' responses to the English language skill they use ICT tools in most are higher in their use in the receptive skills, listening (42.1%) and reading (19.5%) than in their use in the productive skills, speaking (13.1%) and writing (11.3%). In line with the emphasis on the receptive skills, pronunciation is the language area that receives the greatest attention by English language teachers (29%) followed by grammar (23.1%) and then vocabulary (19.9%). Alarm should be aroused here since these results come in accordance with the traditional methods of teaching the second language such as the Audiolingualism and the Oral and Situational teaching approaches according to Richards & Rodgers (2001). These approaches crucially emphasize pronunciation, grammar and vocabulary as a means of achieving proficiency in language learning. It is worth to mention that both methods proved failure as Richards & Rodgers (2001) clarify in enabling learners to transfer the skills acquired to real communication outside the classroom. And this in turn what Hyms (1985) asserts regarding communicative competence whose achievement is the main goal of communicative language teaching. This emphasis on communicative competence is intended to enable the learners to communicate

their ideas through language in a collaborative constructive learning- teaching environment through the use of ICT tools as Freeman (2000) puts it.

5.2 Discussion of the Second Question Results

What are the obstacles to utilizing and integrating ICT tools in the teaching practices in Palestinian public schools from English language teachers' perspectives?

To answer this question, means and standard deviations are calculated for the whole instrument and for each domain separately to precisely capture essence of the data collected. In general, the results show that teachers encounter high-level obstacles with a total mean (M= 3.59) and standard deviation (SD= 1.231). However, dicussing the results of each domain separetely illustrates the various kinds of obstacles teachers come across during ICT utilization and integration..

Results of the first domain deal with the existance of the background knowledge and technological skills. According to Ely's (1990, 1999) conditions, the possession of the technological skills and knowledge is the second condition to be able to implement ICT in teaching, and without them teachers become frustrated and imobalized. The results reveal that teachers view themselves as having moderate technological skills that enable them to use ICT tools in teaching (M= 2.85; SD= 1.350). A similar result is disclosed by qualitiative results where the interviewees consider themselves as having reasonable technological skills. Al- Jaraideh (2009), who finds that Jordanian teachers have moderate skills, comes in line with these results by not considering technological skills an obstacle because teachers receive training provided by the Ministry of Education and Higher Education.

Almekhlafi & Almeqdadi (2010) and Ismail, Almekhlafi & Almekhlafy (2010) come up with the result that teachers possess high ICT skills with mean scores ranging from (M= 3.7 to M= 4.5). Consequently, ICT skills are not viewed as obstacles for these teachers. Bulter & Sellbom (2002) confirm these in the sense

that teachers' ICT skills are not considered as an obstacle. It is worth noting that teachers who possess these skills may be technology adopters who are willing to accept change imposed by the use of ICT tools in teaching. In addition, such teachers do not mind training and upgrading their skills to acquire new skills that may lead to their professional development faster than ever. However, Bebell et al. (2004); Hew & Brush (2006); Jenson, Lewis & Smith (2002); Samuel & Abu Bakar (2006); Samuel & Abu Bakar (2007) contradict these results by stating that teachers still lack basic technology skills which they require before moving towards adopting constructivist teaching practices with technology.

Items which deal with the pedgogical information required to integrate ICT in teaching English score the highest means among the other items of this domain (M= 3.29 & M= 3.21) and are still moderate. This means that English language teachers view themselves as having reasonable pedagogical knowledge that qualifies them to implement ICT tools in their teaching practices. However, qualitaive results place greater emphasis on this point showing that teachers lack sufficient pedagogical knowledge required for the implementation of ICT especially in teaching English. This may be justifiable on the basis of years of experience since quantitative results show significant differences in the means of teachers' responses to the obstacles caused by those whose teaching experience is higher (11 years & above). To elaborate, results of the first question point out the meager use of ICT in the teaching practices because of teachers' resistance to change especially senior teachers because of the need for the acquisition of new pedagogical knowledge. Therefore, mixed methodology is used in this study to illustrate any misunderstanding and gain in- depth knowledge about the problem under investigation. In accordance with these results, Maheswari (2010) considers the awareness of methodological knowledge a prerequisite for the integration of ICT tools in the classroom. Aduwa-Ogiegbaen & Iyamu (2005); Hussain, Jumani, Sultana & Iqba (2010); Jenson, Lewis & Smith (2002) agree that pedagogical knowledge constitutes an obstacle to ICT integration in teaching. Whereas, Ismail, Almekhlafi, & Al- Mekhlafy (2010) disagree to consider knowledge of

how to implement ICT in teaching an obstacle since their study shows that this is the least obstacle among other obstacles.

According to Rogers & Shoemaker (1971), the first stage in adopting change is knowledge which refers to learning about an innovation and how it functions in order to be able to use it correctly. Ely (1990, 1999) places knowledge and skills as the second condition that requires to be satisfied to integrate ICT in the teaching practices without which the integration process will constitute a complete failure at its preliminary stages. In consistency with the quantitative results, qualitative results show that teachers consider themselves possessing reasonable technological skills. However, does the possession of different skills mean integrating ICT tools in the teaching practices? Since teachers report that they lack the pedagogical knowledge required for the successful implementation of ICT in teaching, the possession of technological skills only does not necessarily mean using these tools in the teaching practices.

The second domain which explores obstacles related to infrastructure facilities and cost reveals high- level obstacles with a mean (M= 3.56) and standard deviation (SD=1.219). It is interesting to note that items which investigate cost and internet connection score the highest levels. One of the most important requirements for the implementation of ICT in teaching English is the availability of a variety of hardware and software. Similar results are conveyed by qualitative results where teachers express the lack of ICT resourses in their schools particulary the internet and modern forms of ICTs. These results are confirmed by Aduwa-Ogiegbaen & Iyamu (2005); Akbaba-Altun (2006); Almekhlafi & Almeqdadi (2010); Hurd (2009); Jenson, Lewis & Smith (2002); Pelgrum (2001); Williams, Coles, Wilson, Richardson, and Tuson (2000). Moreover, advanced or developed countries do not consider ICT infrastructure facilities an obstacle. Bordbar (2010); Cuban, Kirkpatrick & Peck (2001); and NEA (2008) affirm this viewpoint by rating infrastructure facilities and resources as non- obstacles and unnecessary for the implementation of ICT in the teaching practices. However, the situation is different in developing countries according to Salameh (2010) who

presents an offline —flash based prototype system using the multimedia approach for teaching English. The implementation of this system requires the availability of cell- phones that have greater functionalities which are existent in the older versions of cell- phones such as mp3/ mp4 players, digital cameras, video recorders, in addition to their ability to run multimedia content. However, the inavailability of the newer versions of cell- phones with all students caused the system to work incorrectly.

An important point that Ely (1990, 1999) raises is that he considers the availabity of such resourses the responsibilty of leadership represented by the Ministry of Education and Higher Education. However, qualitative results show that the availability of such resourses is linked to the local community. This may be justifiable on the basis that Palestine is an occupied country and any attempt to undertake the possible growth is supported by foreign funds. This is the third of Ely's (1990, 1999) conditions that is not satsified which means the reduction of ICT utilization and integration in the teaching practises especially in public schools. Hence, the question that comes to mind here is: if infrastructure facilities with enough funding existed, would Palestinian teachers become adopters of change presented by using ICT in their teaching practices?

The majority of the studies reviewed assert that training is a prerequisite for the successful implementation of ICT in teaching. Means and standard deviations of the questionnaire's third domain are relatively high (M= 3.68; SD= 1.112). It is worth noting that teachers' responses to training in pre- service as an obstacle are higher than those in- service. This in turn means that teachers consider training in the preparatory stages in their years of study more beneficial for the engagement in the implementation of change represented by the use of ICT in the teaching practices since they have the basis which they can upgrade and will not be required to start learning from the scratch. Qualitative results affirm these views especially as viewed by senior teachers who mainly refuse change because of their unwillingness to learn new things. This unwillingness goes in line with Rogers & Shoemaker (1971) theorization of the second stage which assumes that

future potential adopters of change should be persuaded of the value of the innovation.

Ely (1990, 1999) conditions dissatisfaction with the status quo in his theory to determine the need for change represented by integrating ICT tools. By the same token, if teachers want to adopt ICT in their teaching practice, they need to be dissatisfied with the present situation of teaching presented by using the old methods of teaching. However, senior teachers illustrate that old methods are satisfactory for their instructional requirements. Therefore, there is no need for change and training. This in turn means that the process of ICT integration stops before it starts with these teachers. However, there is hope though. Both quantitative and qualitative results indicate that novice teachers are more willing to learn and train not because they are better than senior teachers, but because technology has become an indispensible part of the new generation's education and professional life.

These perspectives are confirmed by a variety of studies such as: Akbaba-Altun (2006); Almekhlafi & Almeqdadi, (2010); Ismail, Almekhlafi, & Al- Mekhlafy (2010); Thao (2003); Samuel & Abu Bakar (2007). Contrary to the previous results, Bulter & Sellbom (2002) do not consider training an obstacle. An important indication in the previous studies which greatly emphasize the current study's results is that teachers state their need for ongoing training that goes beyond generic training and aims at training teachers how to effectively use ICT tools in their work as language teachers. Generic training can only be beneficial in teachers' administrative practices where they might only require to use MS word, Excel, printers or even scanners for the preparation of exams, worksheets, marks, tabulation of learners' documents. However, if teachers to be full adopters of ICT in their teaching practices, they should receive ongoing pedagogical training specifically in teaching English. This continuous training should start at the university and continue during work. To further stress the importance of training, Ely (1990, 1999) considers training as part of the skills and knowledge teachers should have because training leads to both of them.

As Rogers & Shoemaker (1971) hypothesize, the process of ICT utilization and integration is connected with the time element. The importance of this hypothesis is highlighted in this study since teachers perceive time as the highest- level obstacle among other obstacles with (M=3.79; SD= 1.138) of the questionnaire's fourth domain. It is worth to note that teachers' perceptions to item (35) that asks teachers about the time ICT integration requires from their class preparation time scores the highest mean (M= 3.95) among all the questionnaire items. This is true because class time is very strict and teachers should be well prepared to make use of this time effectively. To comment, teachers always complain from the time preparation takes and skip it in many cases. This is in the case of the normal preparation teachers are accustomed. However, is this the case with preparation for delivering teaching via ICT tools? Definitely not! Teachers show similar perspectives when asked about the time required for planning, development of the instructional materials and coverage of the textbooks using ICT tools in teaching English. Qualitative results assert these perceptions in relation to time where teachers point out time restrictions especially the inconsistency with the class time and curriculum coverage and even time for training outside school. These results confirm the ones reported in the previous studies which identify time as a main obstacle in Almekhlafi & Almeqdadi (2010); Bingimlas (2009); Bulter & Sellbom (2002); Bordbar (2010); Hussain, Jumani, Sultana, & Iqbal (2010); Ismail, Almekhlafi, & Al- Mekhlafy (2010); Jenson, Lewis & Smith (2002); Wu (2005); Zhao & Bryant (2006).

Obstacles concerning administrative and technical support are also perceived as high-level obstacles (M= 3.55; SD= 1.163). It is worth to note that Ely (1990, 1999) highlights the items investigated in the fifth domain in the final four conditions in terms of incentives, participation between all the responsible parties including teachers, principals, supervisors, technicians and leadership either within the same school or the Directorate of Education or the Ministry of Education and Higher Education. To start with, lack of technical support scores the highest responses as an obstacle with (M= 3.73; SD= 1.044). This result has been stressed in the majority of the studies reviewed because without this

technical support, implementation of ICT will lack one of its main pillars that should be provided to teachers. Qualitative results greatly affirm this phase demonstrating that the only source of technical support available to teachers is the technology teacher who might not be cooperative or competent enough to satisfy teachers' technological demands. These results have been previously affirmed by Almekhlafi & Almeqdadi (2010); Bingimlas (2009); Maheswari (2010); Thao (2003); Wong (2000); Wu (2005); Zhao & Bryant (2006).

It is a fact that in a centralized educational system like Palestine's, hierarchy is the base for any decisions that may be taken in schools. Therefore, basically in the phase of ICT implementation, principals should play a major role in supporting teachers' attempts to change their teaching methods. Teachers of the current study view administrators' unconcern as an obstacle that hinders them from carrying out activities using ICT tools. Moreover, motivation, incentives, evaluation, clear guidance or provision of instructional materials are lacking as asserted by Palestinian language teachers. Qualitative results elaborate those results where teachers report their dissatisfaction with the absence of the administration role in supporting the integration of ICT tools in the language teaching practices as this teacher (4) says, "Principals do not have any role. Just only they need to fill their report and the tape recorder will make them very happy".

Hussain, Jumani, Sultana, & Iqbal (2010) confirm these results by showing that teachers always complain from administrative unresponsiveness. However, Al-Jaraideh (2009) disagrees with this viewpoint by reporting that administration and leadership do not hinder teachers' efforts to integrate ICT in Jordanian schools.

Closely related in importance to principals' role is supervisors' role which is very marginal or even none as Palestinian English language teachers in the current study report quantitatively and qualitatively. The results indicate that English language teachers do not benefit from supervisors in the integration of ICT in teaching English. Teachers' responses to item (41) reveal that there is little commitment from supervisors towards the integration of ICT in teaching

(M= 3.57). Moreover, qualitative results show that supervisors' role confines to impressionistic judgments based on asking teachers if they use technological tools to vary their teaching methods as clarified qualitatively by teacher's (6) words, "The supervisor's support varies according to the supervisor himself. They support the use of technology. Just words. Some may praise being innovative and include this in your report, others no. It depends."

To conclude the final domain discussion, the results highlight the great role that principals, supervisors and technicians can play in the success of the integration process. More encouragement and cooperation are required from principals to support and facilitate teachers' innovative methods of teaching. Supervisors can prepare units for one stage at least showing how the different language skills can be taught using ICT tools with or without the internet, and then train teachers how to apply these techniques to teaching. This may be due to the fact that one of the supervisors' responsibilities is to evaluate teachers' job. This in turn implies that teachers' professional development and pedagogical training fall on their shoulders.

5.3 Discussion of the Third Question Results

Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their responses to the obstacles' presence due to gender, expertise (practical experience), and educational qualifications (degree)?

Results of the first hypothesis using independent sample t-test show no significant statistical differences between male and female language teachers in their perceptions of the obstacles to ICT utilization and integration in teaching. Similarly, interviewed teachers' responses do not show gender related differences in the integration process. The findings suggest that despite all the difficulties and inequalities women encounter in a conservative society like Palestine's, a promising movement towards change that offer greater role for women teachers is starting. In support of this opinion, Almekhlafi & Almeqdadi (2010) contradict these results by showing differences in integrating ICT in the teaching practices in

favour of females. This is supported by interviewed teachers who show less reluctance in accepting to conduct the interview especially when they recognize that it relates to ICT.

Examining the differences in teachers' responses in relation to their practical experience, the One-Way ANOVA results show significant statistical differences between teachers whose teaching experience exceeds 11 years and those whose teaching experience ranges from 6 to 10 years. The significance value is (Sig= 0.006) in favour of the teaching experience, 11 years & above which means that the differences in teachers' responses to the obstacles are caused by teachers who have been teaching for more than 11 years. This indicates that age of teachers affects ICT integration in teaching. Similar viewpoints are reflected by qualitative results which stress that senior teachers are resistant to change and unwilling to acquire new skills other than those they master. This shows that the younger the teachers are, the greater possibility for ICT utilization and integration is. It is worth mentioning that in the modern world, prevalence of technology among the newer generation normalizes the technological literacy they have in comparison with the older generation. However, this finding does not gain support from Jegede (2009) who finds that age does not affect teachers' ICT competency or use in Nigeria. Still, Jegede's (2009) sample, which constitutes college and university teachers who receive different kinds of training, is different from those at schools to meet the goals of their work as university teachers. This finding may support the finding of the third hypothesis which shows significant statistical differences between teachers in terms of their educational qualifications in favour of holders of higher qualifications. The more educated the teachers are, the more practitioners of ICT they are. This may be justified because higher education requires teachers to learn and use new approaches whether in teaching or in the nature of the assignments that will qualify teachers to teach in universities in the future. This in turn asserts the importance of training as a pre-requisite for integrating ICT in the teaching practices.

5.4 Discussion of the Fourth Question Results

Do English language teachers in the 10th, 11th, and 12th grades in Palestinian public schools differ in their use of ICT tools according to:

a: the availability and accessibility of ICT resources in their schools,

b: the number of training courses they received pre- service i.e. at the university,

c: the number of ICT training courses they attended in- service i.e. provided by the Ministry of Education?

Percentages and frequencies are calculated to investigate the availability of ICT resources in Palestinian public schools. This part is intended to decide the level of availability and accessibility to ICT resources by English Language teachers in their schools. English language teachers' responses show that despite the fact that schools have insufficient numbers of ICT resources, these resources are not always freely open to teachers' use. On the contrary, teachers complain that they have limited access to the available ICT tools in their schools particularly modern technological tools such as the internet. This in turn means that lack of accessibility to technological tools in schools obstructs integrating these tools in the teaching practices. These results are also affirmed by the qualitative results where teachers ensure that tools such as printers, cameras, computer labs, and other tools are not easily accessible to teachers at any time when they want because these are the responsibility of the secretary or the technology teacher. It is crucial to point out, based on the results of this study, that items which ask teachers about integrating ICT tools in teaching and which require internet connection, for example, are considered invalid in schools that do not house internet connection. However, and as previously mentioned by qualitative results that it is the responsibility of the local community to provide schools with internet.

These results have been previously affirmed by Pelgrum (2001) who considers lack of access to infrastructure facilities as one of the main problems encountered in twenty- six countries.   Several studies follow and elaborate this point in

different countries like: Aduwa-Ogiegbaen & Iyamu (2005); Akbaba- Altun (2006); Al-Jaraideh (2009); Bingimlas (2009); Jenson, Lewis & Smith (2002); Samuel & Abu Bakar (2007). Kirkpatrick & Peck (2001) express a dissimilar viewpoint when they come out with the result that accessibility to infrastructure facilities is not an obstacle. This finding might be true in most developed advanced countries as revealed by the National Education Association (NEA, 2008) in the United States, or rich countries such as Iran according to Bordbar (2010).

Concerning the number of training courses teachers received in pre- service, both the quantitative and qualitative results reveal that the number of training courses teachers received at the university is insufficient either pre- service or in-service. Moreover, the results show that teachers receive less training at the university than during work. It is undeniable that training is a main pillar in the development of the educational systems as pointed to in most of the studies presented in the literature review. Moreover, training is considered a foreground facilitator in the implementation process according to Ely (1990, 1999) who conditions equipping teachers with the necessary skills and knowledge required before persuading these teachers to start actually using ICT tools integrally in their teaching practices and overcome the complexity of using ICT tools.

Rogers & Shoemaker (1971) theorize that the first stage of ICT integration is the acquisition of technological knowledge and skills which can be achieved through training. This in turn means that one of the most important determinants of persuading teachers to make the decision to integrate ICT tools in teaching is training. This is because training plays a crucial role in this stage as a pavement to the other stages in the process of technology adoption. Rogers (1995) suggests that there are five attributes upon which an innovation adoption is determined. These include: relative advantage, compatibility, complexity, trialability, and observability. The current study indicates that if teachers are trained to use ICT tools whether they previously know about them or not, they will be able to perceive the "relative advantage" that makes them decide whether these tools are

better than the traditional methods or not and the degree of ICT tools' applicability in their schools. This applicability in turn is not an easy task and its complexity may be overcome only through training and collaboration between the different parties in charge other than teachers only.

However, training should have the grounds that enable teachers to apply what they are trained at realistically. This could be achieved by availing the necessary ICT resources by the Ministry of Education leaving enough space for accessibility to these resources. This way teachers will have the chance to decide practically after experimenting using ICT tools to continue that usage because they will have the opportunity to evaluate the results of using the innovation positively or negatively on the basis whether they view the relative advantage of ICT usage as better or worse than the traditional use. This decision may culminate in confirming the importance and continuity of integrating ICT in teaching, or rejecting to continue integrating ICT tools because of the difficulties they encounter.

As it is apparent from the results above that training occupies an essential position that gives room for creativity on the teachers' part if their needs are met. Training is an ongoing process that should not stop at a certain point especially with the accelerating global developments in technology every day. This in turn implies that there should be greater emphasis on training during the years of study starting with the generic courses that equip teachers with basic technological skills. And then followed by more specialized courses according to the subject matter to be taught. In addition, collaboration between universities and the Ministry of Education gives more importance to the implementation phase in schools and helps policy makers to specify their teachers' needs to complement the work that has started at the university instead of repeating what was previously given, or ignoring the needs of teachers who were not subjected to any training neither at the university nor at work.

5.5 Conclusion

The current study suggests that the utilization and integration of ICT in teaching is an indispensible prerequisite for the reform of the Palestinian educational system as suggested by the Developmental Strategic Plan (2008-2012). It is undeniable that the world is changing very rapidly and soothe English language is changing. Consequently, these changes should be accompanied by change in the teaching methods and techniques.

The current study presents two important perspectives of the English language teachers in Palestinian public schools. The first is that the extent of ICT use by English language teachers is relatively low. The other is that English language teachers' perspectives of the obstacles to ICT utilization and integration in teaching are relatively high. A crucial point that the results highlight is the interlinking relationship among the variables. Each variable is dependent on the other and requires later update and activation because of the rapid changing nature of technology. It is undeniable that Education is the starting point of any nation and its route to development. However, this process has many pillars whose fundamental action power is the teacher as all parties in the educational system argue. But, if this pillar is desired to be the motor power of teaching, conditions presented in this study should be satisfied or at least start moving from only blaming teachers for their reluctance to adopt change represented by integrating ICT tools in their teaching practices and take more realistic tangible actions that circulate teachers' innovative initiatives.

5.6 Contribution of the Study

The main contribution of this study is that it addresses a promising modern movement in education that is regarded as a main form of reform of the educational system in Palestine. This trend has been first documented by launching the Palestinian Electronic Initiative (PEI) in (2005) and has been stressed in the Strategic Development Plan (2008-2012) again. Policy makers in Palestine, in their efforts to pursue the outer world, consider the utilization and integration of ICT in Education as a motor power for the improvement and development of education as stated in the Palestinian Reform and Development Plan (PRDP) (MoHE, 2008: 43). Moreover, they have started different projects in collaboration with foreign countries to support the implementation of this movement. However, since (2005), very few tangible results have been achieved in this area particularly in public schools despite some achievements in private schools and universities.

Additionally, the current study uses a diverse set of theories to illustrate the utilization and integration of ICT By English language teachers. It uses Rogers & Shoemaker's (1971) diffusion of innovations theory to present the stages of ICT integration according to their linkage to the time element; Rogers (1995) attributes theory to determine the use of ICT; and Ely (1990, 1999) eight conditions as enablers for the successful integration of ICT in Public schools in the case of the satisfaction of these conditions. The use of this diversity of theories can be used in the future as a basis for the implementation of ICT in schools.

5.6 Recommendations

The current study suggests that English language teachers' attempts to utilize and integrate ICT tools in teaching English are very meager and are mainly individual intuitive attempts that lack scientific basis. Moreover, English language teachers face high- level obstacles when they integrate ICT in their teaching practices inside or outside the classroom. Therefore, in order to bridge the gap in Palestinian public schools and move towards an information society coping with the accelerating changes all over the world, more serious steps should be taken by policy makers in terms of:

1. Specification of teachers' technological needs before addressing official books to those teachers asking them to apply ICT in their teaching practices.
2. Collaboration between the Ministry of Education and Higher Education and the local universities to set the requirements of the teaching process and prepare teachers on a realistic basis that meets the needs of Palestinian students.
3. Exposure of English language teachers to ongoing technological and pedagogical training according to its relation to the English language curricula.
4. Provision of encouragement, incentives and motives from leadership to innovative teachers.
5. Change of principals' and supervisors' roles in the ICT integration process.

Recommendations for Future Investigation

Since the current study uses mixed methodology to shed light on ICT integration in teaching English from English language teachers' perspectives only and the obstacles towards this integration, the researcher recommends the following as future studies:

1. Further experimental research should be carried out to examine the effects of the various ICT tools in teaching English in the classrooms in a way that reduces teachers' workload and adds to their professional development.

2. This study supports only the first and second stages of Rodgers and Shoemaker (1971) theory. However, the other three stages have not been supported yet. Therefore, it is recommended that, in the coming years, similar comparative studies should be conducted to decide if the efforts to integrate ICT tools in Palestinian Public Schools come true.

3. Analytical studies need to be conducted concerning the courses given at universities, specifically in the colleges of Education, to determine their consistency with the real educational needs of teachers in public schools in Palestine.

4. This study has shown that principals' and supervisors' roles concerning ICT integration are relatively marginal. Therefore, studies that investigate the role of principals and supervisors in integrating ICT tools in teaching are recommended.

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APPENDICES

Appendix (1): Reviewers of the Questionnaire

No.	Name	Major	Place of work
1	Dr. Khawla Shakhshir	PHD in Science	Birzeit University
2	Dr. Fateen Masa'd	PHD in Mathmatics	Birzeit University
3	Dr. Abdullah Bsharat	PHD in Education	Birzeit University
4	Dr. Hasan Awad	PHD in Science	Birzeit University
5	Dr. Musa Al-Khaldi	PHD in Science	Birzeit University
6	Dr. Nader Wahbi	PHD in Information Technology(IT)	Birzeit University/ Al-Qattan Center for Research Studies
7	Dr. Ziyad Al- Tanni	PHD in Education/ Curricula Design	Al- Quds Open University
8	Mrs. Maysoon Barghouti	MA in Education	Directorate of Education (Technology Supervisor)

Reviewers of the Interview

Name	Major	Job
Dr. Khawlah Shakhsheer	PHD in Science	Birzeit University
Dr. Azim Assaf	PHD in Linguistics	Birzeit University
Mr. Fu'ad Nu'man	BA in English Language Literature	Senior English language supervisor(Directorate of Education, Ramallah)
Mr. Mohammad Al-Labadi	BA in English Language Literature	English language supervisor(Directorate of Education, Ramallah)

Appendix (2): Covering letter to the questionnaire reviewers

College of Education - Master Program

In the name of Allah, Most Gracious Most Merciful

Dear Professor …………………..

The researcher is developing this questionnaire for the purpose of completing her Master thesis at Birzeit University. The study is titled" The Obstacles of Utilizing and Integrating ICT in Teaching English Language in the Secondary Stage in Ramallah and Al-Beireh from Teachers Perspectives". Therefore, I am thankfully asking you to carefully read the items and judge them. The items are rated according to Likert scale (5: Strongly agree; 4: Agree; 3: Neutral; 2: Disagree; 1: Strongly disagree). Could you please place your opinion in the spaces along with your comments?

The questionnaire is developed based on previous literature. The number beside each item refers to its documentation in the references list at the end of the questionnaire.

Greatly thankful to you

The researcher: Muna Shalhoub

Supervised by: Dr. Khawla Shakhshir

Appendix (3): The final script of the questionnaire

In the name of Allah, Most Gracious Most Merciful

Dear teacher,

The researcher is a graduate student at Birzeit University, and is doing her graduation thesis project regarding the obstacles of Integrating Information and Communications Technology (ICT) in Teaching English in the Palestinian schools.

Thank you for your contribution in answering the questionnaire. By completing it, you have all the appreciation for your participation in the study and be sure that all responses will remain confidential and will be used only for the purposes of this research. We hope that you take this questionnaire seriously, as your answers will affect the results.

Teachers of the English language for the 10th, 11th & 12th grades are thankfully required to answer this questionnaire. Please return your responses no later than 10/3/2011.

Researcher: Muna Shalhoub

College of Education/ Master Program

Birzeit University

Part one: General information about the participants

Please respond to the piece information that best applies to you.

*District

1. Ramallah & Al- Beireh ☐   2. Tulkarm ☐   3. Hebron ☐

*Gender

1. Male ☐   2. Female ☐

*Experience

1.(Less than a year) ☐   2. (1-5 years) ☐   3. (6-10 years) ☐   4. (11 years & above ☐

*Education qualification (Degree)

1. Diploma ☐   2. BA ☐   3. BA + Education Diploma ☐   4.MA ☐

* Number of ICT courses you studied in pre- service (at the university)

1. (None) ☐   2. (One) ☐   3. (Two) ☐   4. (Three) ☐   5. (Four or more) ☐

*Number of ICT training courses you attended in service provided by the Ministry of Education

1. (None) ☐   2. (One ☐   3. (Two) ☐   4. (Three) ☐   5. (Four or more) ☐

* Language skills you use ICT in most

1.(None) ☐   2. Listening ☐   3. Speaking ☐   4. Reading ☐   5. Writing ☐

* Language areas you use ICT in most

1.(None) ☐   2. Vocabulary ☐   3. Grammar ☐   4. Spelling ☐

5. Pronunciation ☐   6. Dictation ☐

*Percentage of classes you use ICT in per week

1. 0% ☐   2. (less than25%) ☐   3. (25% -less than50%) ☐

4.(50%-75%) ☐   5.(above 75%) ☐

Part two: Please select the response that reflects the level of access to the following types of ICT tools in your school. Use the scale below to determine your response:

1= Not available in my school.

2= Available but not accessible (can't use or sign up for).

3= Available but have limited access to it.

4= Available and have easy access to it.

Number	ICT resources	I	2	3	4
1	Computer lab				
2	Internet connection				
3	Technology support technicians				
4	LCDs				
5	Overhead projectors				
6	Display screens				
7	Printers				
8	Scanners (a tool that converts information into a digital image)				
9	Digital camera				
10	Video				
11	TV				
12	Tape recorder				
13	Photocopy machine				

Part three: Please select the response that best reflects your level of agreement with the following statements according to the scale given:

Number	Items	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
1	I have insufficient knowledge about how to integrate technology into my teaching practices.					
2	I have insufficient experience about how to integrate technology into my teaching practices.					
3	I face technical difficulties when I am working on a personal computer (e.g. linking it to other tools, presenting saved material).					
4	I can not use a variety of programs (software).					
5	I find certain programs such as excel difficult to learn.					
6	I lack advanced skills in using a specific program (e.g.downloading programs, signing in or out of for example skype, blogs, wikis,etc).					
7	I lack the ability to use Microsoft Word.					
8	I lack the ability to use the spreadsheet (Microsoft Excel).					
9	I lack the ability to send and receive e-mails.					
10	I lack the ability to retrieve information from the internet.					
11	I lack the ability to use CD- ROM (optical disk capable of storing large amounts of data).					
12	I lack the ability to understand basic computer commands like save, copy, etc.					
13	I lack the ability to use the printer.					
14	I lack the ability to use MSN Messenger (instant message software) or other tools of communication with other teachers.					
15	I lack the ability to integrate ICT tools (email, e-learning system) in teaching English.					
16	I lack the ability to use a scanner					

Nu mb	Items	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
17	I lack the ability to use PowerPoint presentation.					
18	Inability to depend on access to essential software (e.g. new versions of MS office, internet programs, adequate computerized instructional material).					
19	The number of computers is not enough compared to the number of students.					
20	Availabe hardware(computers, printers, scanners, CDs, etc.) always breaks down.					
21	The network connectivity is limited (slow and disconnects quickly).					
22	The ICT tools (internet, e-mail, e- learning systems) are not always reliable (unsafe because of hacker attack, viruses, cable problems).					
23	Available hardware is not sufficient to accommodate ICT supported teaching.					
24	Available software (programs) is not sufficient to accommodate ICT supported teaching.					
25	There are insufficient funds to purchase (buy and pay for) needed equipment or software.					
26	Financial support for the development of instructional materials of ICT tools is inadequate.					
27	Financial support allocated for ICT integration in the classroom is not enough.					
28	My school does not provide enough training opportunities (programs, workshops, etc.) that target the use of technology in teaching English.					
29	Technology training is offered at inconvenient times.					
30	Generic technology training is irrelevant to teachers' needs.					
31	There is limited training during in- service period (during work).					
32	There is lack of training in pre-service period (in the university).					
33	There are problems in getting quality-training programs.					
34	There are limited institutional training opportunities at my school.					

Number	Items	Strongly Agree (5)	Agree (4)	Neutral (3)	Disagree (2)	Strongly Disagree (1)
35	The integration of ICT tools into teaching English requires too much of my class preparation time.					
36	The use of ICT tools to communicate with my students(e.g. email, e-learning system, etc.) requires too much of my time.					
37	The development of instruction(English language lessons) that uses technology requires too much of my time.					
38	The integration of ICT tools (LCD, projector, e-mail, etc.) in teaching English causes me to spend extra time in covering the required material in the curriculum afterwards.					
39	There is little administrative support for the integration of technology into teaching.					
40	There is lack of motivation from leadership for instructional use of computers.					
41	There is little commitment from supervisors for instructional use of computers.					
42	There is no continuous technical staff development to support the integration of technology into teaching.					
43	There are limited materials on how to integrate ICT tools into teaching provided by the Ministry of Education.					
44	The school administration does not provide any clear instructions on how to integrate ICT tools in my teaching.					
45	The school administration does not provide any incentives (encouragement) for ICT integration in instruction.					
46	The school administration does not provide any evaluation on the integration of ICT tools in teaching.					
47	I have had difficulties getting support from technical staff at any time.					

Note: Here are the definitions of some terms in the questionnaire that you may not be familiar with:

Information communication technology (ICT) integration: Teachers' full access and use of ICT tools that are mentioned in the questionnaire to enhance and assist the language learning- teaching process inside the classroom (i.e. in teaching English inside the classroom).

ICT Utilization: Partial use of technological applications to assist teachers in their teaching practices outside the classroom (i.e. in the administrative tasks related to teaching English that are conducted outside the classroom such preparing your exams, worksheets, test- result analysis, counting marks, communicating with students, teachers, etc.)

E- learning system: The delivery of a learning, training or education program by electronic means. E-learning involves the use of a computer or electronic device (e.g. a mobile phone) in some way to provide training, educational or learning material.[1]

Skype: A computer program that can be used to make free voice calls over the Internet to anyone else who is also using Skype. [2]

Blogs: A web site that contains an online personal journal with reflections, comments, and often hyperlinks provided by the writer. [3]

Wikis: A wiki is a website comprising text-based content that can be edited collectively by users at will. [4]

Hardware: A general term that describes the physical aspects of computers and related devices. [5]

Software: A general term for the various kinds of programs used to operate computers and related devices. [5]

[1] www.timelesslearntech.com/e-learning.php
[2] www.webopedia.com/TERM/S/Skype.htm
[3]www.merriam-webster.com/dictionary/blog
[4]http://www.cio.com/article/122701/Blogs_and_Wikis_in_the_Business_World_Definition_and_Solutions
[5]http://sawaal.ibibo.com/operating-systems/difference-between-hardware-software-2001741.html

Appendix (4): Interviewees Personal Information

District	Teachers' number & gender	Educational qualifications	Experience	Classes taught
Ramallah & Al-Bireh	T 1(M)	BA+ Diploma (Language methodologies)	24 years	9, 10, 11
	T 2 (M)	BA (Literature)	14years	10 & 12
	T3(F)	BA (Methodology)	9 years	8,9,10
	T4 (F)	BA(Literature) +Diploma (Education)	14 years	8,9,10,11,&12
Tulkarm	T5(F)	BA (Literature)	9 years	10, 11&12
	T6 (F)	BA (Literature)	20years	10,11&12
	T7 (M)	MA(Language methodologies)	4 years	8,9,10,11,& 12
Hebron	T 8 (M)	BA ((Language methodologies)	4 years	10
	T9 (M)	BA(Language methodologies)	3years	9&10
	T10 (F)	MA (Linguistics)	16years	11&12
	T11(M)	BA (Language methodologies)	23 years	11&12
	T12(F)	BA (Literature)	2years	8,9,10,

Appendix (5): Interview Questions

First question: Ice breaker
Could you introduce yourself please?

- your name/ -major (methodology/ literature)/ - educational degree/ - classes you teach

Second question: Aims to get information about ICT hardware available for teachers use
2) May I ask about your personal experience with technology?

- Do you have a personal computer? Internet?
- Could you talk about available ICT hardware (tools or machines) in your school?
- How do you evaluate the computer lab in your school in terms of:
- Student capacity,
- Number of computers compared to the number of students,
- Readiness of these computers to download educational programs related to teaching English, availability of the internet, LCDs, display screens, printers, scanners, cameras, video/ TV/ CD- ROMs/ overhead projectors.

Third question: Aims to get information about ICT software available for teachers use.
3) What programs can you use without the internet? With internet?

- For what purposes do you use the computer or the internet at home? Does that have any connection with school?
- Have you received any computerized teaching materials from the Directorate of Education? If so, are they helpful? In what ways?

Fourth question: Aims to get information about teachers' ICT pedagogical knowledge, skills and English language lessons teachers use ICT in.
4) Use and integration of ICT tools in the teaching practices requires sufficient knowledge and skills.

- Have you conducted ICT integrated lessons in teaching English? In which areas?
- Do you have sufficient knowledge how to integrate ICT tools into teaching English? Could you explain please?
- Can you tell us what skills do you need when conducting lessons using ICT tools?

- Can you tell us about other cases or purposes that require you to use ICT tools in your job as a teacher outside the classroom? Which programs do you need?
- Do you use the computer lab available in your school? How?
- How do you plan the activities that use technologies? Daily and annually?
- From your point of view, what difference does the use of ICTs make in your teaching practices?

Fifth question: Aims to get information about ICT training teachers receive pre- service and in-service.
5)   Training is one of the primary means to professional development.

- Have you received training on how to integrate ICTs into your instructional practices pre- service, in- service (provided by school or the Ministry of Education)?
- Have you received training on how to integrate technology into teaching English? If yes, please explain?
- How do you evaluate the training courses which you received in terms of :
- Instructors who train you,
- convenience of your needs as a teacher,
- the quality these courses add to your teaching practices,
- suitability of their time to your work schedule.

Sixth question: Aims to get information about the role leadership represented by Ministry of Education & Higher Education, school administration, supervisors, and technicians in supporting ICT utilization and integration in Palestinian Public schools:
6)   What role does leadership play in integrating different ICT tools in teaching? (support, incentives, encouragement, evaluation, provision of required materials or tools, etc.)

- What about supervisors' role in supporting the integration process, guidance?
- Could you explain how the Ministry of Education supports the use of technological tools in the teaching process? i.e. provide materials on how to integrate ICT tools in the teaching practices?
- What kind of technical support do you need when using ICT tools inside or outside the classroom?
- Could you get that support when you need it?

- Are technicians helpful when you need them? What kind of support do they provide? What about the time? Do they provide help at any time?
- As a teacher, are you responsible for any financial matters when using ICT tools in the teaching process? Could you illustrate please?

Seventh question: Aims to get information about time related obstacles.

7) Time is an important determiner for technology use in the teaching process. How does it affect the teaching process inside and outside the classroom in terms of:

- managing and controlling your class during ICT integration,
- daily and annual planning (preparation),
- covering the teaching material after using ICT tools to present the material required,
- communicating with other teachers, students, retrieving materials from the internet,
- Preparing your exams, worksheets (word), test- result analysis, counting marks, finding percentages (productive excel), developing instructional material using Presentation software (power point), save much of your time?

Eighth question: Aims to get information how teachers are informed about the innovative initiatives launched by the Ministry of Education & Higher Education and asked to implement change in their teaching practices:

8) Do you have an idea about the Palestinian initiative, Towards Electronic Palestine or any other project that talks about ICT teaching?

- Have you received any official document to use ICT in your teaching practices inside or outside the classroom? If yes, was it supplemented by guidance for the implementation of this document?
- What's your opinion about it? Is it possible for us as English language teachers to integrate the different forms of ICTs in your teaching practices? If yes, how? And if not, why?

Ninth question: Aims to elicit if there are any other obstacles the research instruments might miss and how to overcome such obstacles:

9) Are there any other obstacles which you encounter other than those mentioned above? Do you have any suggestions that may help you to overcome these obstacles?

Appendix (6)

Palestinian National Authority

Ministry of Ed., & Higher Ed.,

Directorate General of Supervision & Ed.l Qualifying

بسم الله الرحمن الرحيم

الـسـلـطـة الـوطـنـية الـفـلـسـطـيـنـية

وزارة التربية والتعليم العالي

الإدارة العامة للإشراف والتأهيل التربوي

الرقم: وت/ ٥٤ سنه

التاريخ: 2010/12/21

الموافق: 1432/01/15هـ

السيد مدير التربية والتعليم/ _____ المحترم

رام الله، طولكرم، الخليل

تحية وبعد،

الموضوع: الطالبة منى شلهوب

يرجى تسهيل مهمة الطالبة المذكورة أعلاه من جامعة بيرزيت في الحصول على أسـماء المـدارس التـي تحتوي على الصفوف 11+12 وأعداد معلمي اللغة الإنجليزية من أجل استكمال دراسة ضـمن مـساق فـي برنامج الماجستير.

مع الاحترام

أ. ثروت زيد

مدير عام الإشراف والتأهيل التربوي

نسخة/ معالي وزيرة التربية والتعليم العالي المحترمة

نسخة/ عطوفة الوكيل المحترم

نسخة/ السادة الوكلاء المساعدين المحترمين

نسخة/ السادة جامعة بيرزيت/ دائرة المناهج والتعليم/ د. فطين مسعد المحترم.