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## EFL Teachers' Attitudes and Beliefs toward the Implementation of E-Learning

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## **Dedication**

*This dissertation is dedicated to my wonderful parents, who have raised me to be the person I am today. You have been with me every step of the way, through good and bad times. Thank you for all the unconditional love, guidance, and support that you have always given me, I love you!*

## **Abstract**

This research surveyed English as foreign language university teachers in order to identify the nature of their beliefs and attitudes toward the incorporation of electronic learning into their teaching, and to define the different factors influencing them. Questionnaire revealed that weekly computer hours' use and teachers' experience represent the most noticeable factors impacting teachers' attitudes and beliefs. The regular use of technology was found to positively influence both teachers' attitudes and perception that technology is an effective teaching tool. Teachers with 10 to 20 years of teaching experience most positively perceived electronic learning implementation as valuable in EFL instruction. Genre, age, educational level and university affiliation did not significantly influence teachers' attitudes and beliefs toward electronic learning integration into English language teaching.

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## **List of Abbreviations**

CALL: Computer Assisted Language Learning

EFL: English as a Foreign Language

ICT: Information Communication Technology

IIT: Interactive Information Technology

TEFL: Teaching English as a Foreign Language

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## **General Introduction**

Over the last century, the teaching profession has been regularly confronted with change in the form of new methodologies, approaches, organisational structures and a wide range of technological innovations. From the technological promises of radio, television and audio-cassettes of the last century, the computer now offers educational systems a broad based electronic medium with the potential to radically transform and enhance education programmes.

Current educational models and measures are thought to reflect the social, political, economic and philosophical values of the period. With the increasing technological development and the growing popularity of e-learning all over the world, our educational era is portraying a definite shift in how higher education should be delivered. Not only is the delivery of educational programme different but other things in the educational environment are shifting accordingly such as faculty roles, course management, library and learning resources access.

The present study examines how teachers perceive the importance of computer technologies in foreign language teaching (here English language) and hence identify what they think about the implementation of electronic learning (E-learning). Many educational institutions all over the world have realised that the rapid increase in the availability and accessibility of computers and other related technologies highlights the value of educational technology within schools and universities. There is a great deal of support for technology integration (Marcinkiewicz, 1994). Educational institutions have started investing considerable amounts of money in technology resources to improve the quality of English language learning and teaching. They are increasingly looking at ways of successfully incorporating these tools into their curricula, syllabi, and classroom practice. However, not all

teachers are willing to integrate e-learning into their instruction. The present study is an endeavour to examine foreign language teachers' beliefs and attitudes toward e-learning implementation within university programmes. Such study can provide significant insight into many aspects of education since exploring teachers' beliefs and attitudes is essential to improve teachers' development and teaching practices.

### **Research Objectives and Questions**

This study aims at assessing the attitudes toward the worth of E-learning among English Language university teachers. The study will attempt to provide insights into the nature of beliefs and attitudes and their effect on directing action using educational technology in the Algerian context. The purpose of such a study is to pave the path for an appropriate implementation of e-learning at Algerian universities.

### **Research Questions:**

1. What are English Language teachers' attitudes and beliefs toward e-learning?
2. What are the different factors that shape and affect the teachers' attitudes and beliefs?
3. How do these attitudes and beliefs affect teachers' intentions and reported practices implementing learning?
4. What are the different barriers that prevent teachers from integrating e-learning?

### **Methodology**

The research methodology and tools which will help us conduct such investigation and answer the four research questions mentioned above will be a descriptive and analytic method. It will be based on the collection of data from a questionnaire that has been administered to 45 teachers at the English language departments of Annaba, Constantine, Guelma, Adrar universities, and the Ecole Normale Supérieure in Constantine.

The questionnaire is divided into four parts , each one focuses on a number of items that will seek to obtain information about teachers' background information, teachers' stated beliefs and attitudes toward e-learning, their familiarity with modern technology, acceptance of e-learning worth, benefits, and how e-learning will affect the Teaching of English as a Foreign Language. It will be based on considerations made on observations of Algerian university websites and the amount of information they provide to the Algerian academic (students / teachers, public) community.

### **Hypothesis:**

In this study we hypothesize that:

1. When teachers ignore modern technology, they have a negative attitude
2. Teachers who have some knowledge about e-learning, develop a positive attitude and hence need some e-learning pedagogy

### **Content of the Dissertation:**

The present dissertation consists of four chapters; the first one deals with the notion of teachers' attitudes and beliefs, the second one is devoted to e-learning and distance education. The whole study design procedures and findings are presented in the third chapter where there is a description of the questionnaires' findings. The last chapter summarises what has been discussed in the preceding chapters and adds some pedagogical considerations and recommendations of the study.

**CHAPTER ONE/ TEACHERS' BELIEFS & ATTITUDES TOWARDS  
EDUCATIONAL TECHNOLOGY**



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## **Introduction**

This chapter discusses the notions of beliefs and attitudes, their nature and their influence on teachers' practices and their use of educational technology. There are three sections in this chapter; the first will be devoted to explaining teachers' beliefs and the second will examine teachers' attitudes. The third section will consider the effects of both beliefs and attitudes on teachers' behaviours.

### **1. Teachers' Beliefs**

This first section analyses the notion of teachers' beliefs. In order to understand better the term teachers' beliefs, a collection of definitions has been analysed. Then an examination of the different teachers' beliefs sources, importance as well as the way they affect teachers' classroom practices were presented.

#### **1.1. The Notion of teachers' beliefs**

Numerous studies have attempted to study teachers' beliefs and almost all of them have come up with various definitions and conceptualizations to the construct. Many of these studies rarely define 'belief' or use it explicitly as a conceptual tool in the educational community. According to Pajares, teachers' beliefs have not been effectively analysed and examined, because, as a global construct, belief does not lend itself to empirical investigation and is difficult to define. Pajares argues:

*“The difficulty in studying teachers' beliefs has been caused by definition problems, poor conceptualization, and differing understandings of beliefs and belief structures”*  
(Pajares, 1992: 307).

The topic of teachers' beliefs is also avoided, because, as Pajares explains:

*“it is often seen as the more proper concern of philosophy or, in its more spiritual aspects, religion”* (Pajares, 1992: 309). However, he argues that beliefs

*“are a legitimate subject of linguistic inquiry in fields as diverse as medicine, law, anthropology, sociology, political science, and business, as well as psychology, where attitudes and values have been a focus of social and personality research”* (Pajares, 1992: 308)

## **1.2. Definition of Teachers Beliefs:**

Dilts (1999) defines beliefs as judgments and evaluations that people make about themselves, about others and about the world around them. However, despite this seemingly simple definition, and despite the fact that they are considered “the most valuable psychological construct to teacher education” (Pintrich 1990), beliefs are in fact difficult to conceptualize. Pajares (1992) suggests that one of the reasons for such a difficulty is the fact that beliefs are “messy constructs” and are often referred to by means of such different terms as:

*“attitudes, values, judgments, axioms, opinions, ideology, perceptions, conceptions, conceptual systems, preconceptions, dispositions, implicit theories, explicit theories, personal theories, internal mental processes, action strategies, rules of practice, practical principles, perspectives, repertories of understanding, and social strategy, to name but a few that can be found in the literature.”* (Pajares, 1992: 309)

Pajares (1992, 314) refers to all these names as “new jargon, old meaning”; in other words, he sees them all as an attempt to describe the same thing. He suggested a comprehensive synthesis of beliefs drawn from his review of the literature on the topic (Pajares, 1992: 324).

The following points are part of his synthesis:

1. Beliefs are formed early. In fact, the earlier a belief is incorporated into the belief structure, the more difficult it is to alter. Newly acquired beliefs are the most vulnerable to change.

2. Beliefs appear to be self-perpetuated and resistant to change. They tend to be preserved even against contradiction caused by reason, time, schooling, or experience. In addition, individuals tend to hold on to beliefs based on incorrect or incomplete knowledge even after scientifically correct explanations are presented to them. This is the reason why beliefs appear to be static, resistant to change and are generally not affected by reading and applying the findings of educational research (see Hall and Loucks 1982 and Nespor 1987).

3. People develop a belief system that houses all the beliefs acquired through the process of cultural transmission.

4. Beliefs are prioritized according to their connections or relationship to other beliefs. In fact, Woods (1996) speculates that the more teachers' beliefs are interconnected with other beliefs, the more they are difficult to change.

5. Beliefs strongly influence perception and behaviour although they are unreliable guides to the nature of reality.

6. Beliefs play a key role in defining tasks and selecting the cognitive tools with which to interpret, plan, and make decisions regarding such tasks. Therefore they play a critical role in defining behaviour and organizing knowledge and information.

Now that the notion of ‘belief’ has been defined, the focus will be narrowed down to the role that teacher’s beliefs play in actual classroom practice. Teachers come to the classroom with their own system of beliefs and, to some extent, these determine many of the choices they make in relation with what and how they teach. Murphy (2000) establishes a definition of teachers’ beliefs based on Pajares’ synthesis of the notion of beliefs. She defines teachers’ beliefs as the representation of:

*“... a complex and inter-related system of personal and professional knowledge that serves as implicit theories and cognitive maps for experiencing and responding to reality. Beliefs rely on cognitive and affective components and are often tacitly held.”*

(Murphy, 2000:4)

Richards defines teachers’ belief as *“the information, attitudes, values, expectations, theories, and assumptions about teaching and learning that teachers build up over time and bring with them to the classroom”* (Richards,1998:66). It is for this reason that an investigation of teachers’ beliefs is necessary in order to gain a better understanding of what goes on in the classroom (Borg 2001).

### 1.3. Beliefs Vs Knowledge:

Another source of confusion about the concept of beliefs is the distinction between beliefs and knowledge. Several researches have found that beliefs are not so much different from knowledge since beliefs constitute a form of knowledge (Murphy 2000). By contrast, according to Nespor (1987) beliefs and knowledge are different in the following ways:

1. Beliefs come into play when teachers attempt to define goals and tasks which they have no direct experience. On the contrary, teachers use knowledge when *“the goals and paths to their attainment are well defined”* (Nespor,1987:310).
2. Beliefs can be said to relate much more heavily on affective and evaluative components than knowledge since beliefs are *“an acceptance proposition for which there is no conventional knowledge, one that is not demonstrable and for which there is accepted disagreement”* (Woods, 1996:195). In other words, beliefs tend to have a higher degree of subjectivity than knowledge. On a continuum of doubt, there is less doubt about knowledge than about beliefs. The more complex a situation gets, the likelier it is for people to have diverse perspectives. This is when people turn to their beliefs. A belief, thus, represents a person’s choice rather than the one true fact agreed upon by everyone.
3. Beliefs are often static whereas knowledge often changes.
4. Knowledge can be evaluated or judged whereas beliefs are relatively difficult to evaluate or judge because of the lack of agreement of how they should be assessed.

One important factor that can be drawn from Nespor's distinction of beliefs and knowledge is that beliefs are 'the bible' or "*personal pedagogies or theories*" (Nespor 1987) on which teachers rely when they do not have sufficient knowledge and understanding about a given task. Nespor (1987) suggests that teachers tend to rely more on their beliefs than on research-based theory:

*"...teachers' beliefs play a major role in defining teaching tasks and organizing the knowledge and information relevant to those tasks. But why should this be so? Why wouldn't research-based knowledge or academic theory serve this purpose just as well? The answer suggested here is that the contexts and environments within which teachers work, and many of the problems they encounter, are ill-defined and deeply entangled, and that beliefs are peculiarly suited for making sense of such contexts."*(Nespor,1987:324)

#### **1.4. Sources of Teachers' Beliefs**

Another point that needs to be elaborated on is the ways in which teachers actually develop their beliefs. Kindsvatter, Willen, and Ishler (1988, cited in Richards and Lockhart 1996: 30) suggest the following sources of teachers' beliefs:

Ten sources synthesized from Bonwell&Eison (1991); Kindsvatter, Willen and Ishler (1988) cited in Richards and Lockhart (1996) among others, have been glossed hereunder.

**1.4.1. Teachers' professional code of ethics:** Language teachers, as others do, adhere to the highest ethical standards, and believe in the worth and dignity of each human being, recognize the supreme importance of the pursuit of truth, devotion to excellence, and the nurture of the democratic principles.



**1.4.2. Level of teachers' effectiveness:** The qualities of an effective teacher can be broken up into certain aspects such as personality, expectations, knowledge of the subject, and ability to maintain a positive classroom environment.

**1.4.3. Dispositions or attitudes of language teachers:** referring to language teachers' natural qualities of mind and character. It reminds us the following:

- keeping abreast of new ideas and understandings in the field;
- appreciate strengths, weaknesses, and individual differences of students as opportunities for learning;
- establishing a positive climate at all levels;
- valuing and encouraging many modes of communication, on going and varied assessment strategies, and long-term and short-term planning;
- engaging in and supporting appropriate professional practices; and
- considering all aspects of the learners' well being (cognitive, emotional, social, and physical) and be alert to signs of difficulties.

**1.4.4. Their own experience as language learners.** Traditionally, teachers teach as they were taught, for they were once students. Their formed beliefs about teaching, therefore, are reflections of how they themselves were taught.

**1.4.5. Experience of what works best.** Experience, for many language teachers, is the primary source of beliefs about teaching. A teacher may have found that some teaching strategies work well and some do not. By witnessing how a method works for a particular group of students might lead to the beliefs about such a method.

**1.4.6. Established Practice.** Due to established norms or teacher's individual or collective beliefs and actions, certain teaching styles and practices may be preferred by individual language teachers.

**1.4.7. Personality factors.** Some teachers have a personal preference for a particular teaching pattern, arrangement, or activity because it matches their personality. An extroverted teacher, for example, may love to do a lot of drama in his/her conversation classes, because he/she is an outgoing kind of person and it suits the way he/she teaches.

**1.4.8. Educationally based or research-based principles.** Teachers may draw on their beliefs from learning principle in psychology, second language acquisition, foreign language teaching research or education and try to apply it in the classroom.

**1.4.9. Principles derived from an approach or method.** Within a school or an institution, certain teaching styles or methods that are rooted in their system for quite some time may be preferred and might be taken for granted as the most effective. Furthermore, teachers may believe in the effectiveness of a particular approach or method of teaching and consistently try to implement it in the classroom.

**1.4.10. Understanding of the “why” of “what” they teach:** This increases the teachers' performances to enhance the students' involvement in the learning process so that students will be able to recognize and accept their responsibility for the learning and development. This goes with current policies favouring active learning strategies that are equivalent to lectures in promoting content mastery, but superior to lectures in encouraging student thinking and writing skills.

While the first seven points may be applicable to the vast majority of teachers, the extent to which the three last points apply may vary greatly according to the situation. In Algeria for example most teachers have long teaching hours and heavy workloads which make it difficult for them to keep up to date with the latest developments in Foreign (English) Language Teaching (ELT). In addition, there is limited availability of academic materials and, in general, teachers do not have many opportunities for professional development. In particular, they do not have many chances at all to be exposed to, and so become aware of, new ideas in relation to aspects of ELT.

Teachers' beliefs can take many forms in practice. Fang (1996:50) in discussing forms of teachers' beliefs notes:

*“They can be embodied, among others, in the teacher’s expectations of his/her students’ performance or in the teacher’s theories about a particular subject area’s learning and teaching. Regardless of the forms they take, a teacher’s beliefs or philosophy can affect teaching in one way or the other.” (Fang,1996:50)*

### **1.5. The importance of Beliefs**

Nespor and Schoenfeld (as cited in Borg, 2001:1) note that beliefs are important to our personal and professional lives. Beliefs play an influential role in the appraisal and acceptance or rejection of new information and memory processes such as the retrieval and recognition of an event by an individual. Borg (2001) adds that beliefs play a role in defining behaviour, organizing knowledge and information..

## **1.6. Teachers' Beliefs and Actual Practice**

An impressive body of evidence is being presented to indicate that teachers are profoundly influenced by their beliefs, which are closely connected to their values, to their views of the world and to their conception of their positions within it (Williams & Burden, 2000:56). Through his fully comprehensive review of the literature on teachers' beliefs, Pajares(1992) concluded that actually beliefs had a greater influence than knowledge on the way they plan their lessons, on the kinds of decisions they make and on their general classroom practice.

Although beliefs are notoriously difficult to define, there exist a number of statements that we can make about them. They have a tendency to be particularly culturally bound, to be formed early in life and to be resistant to change (opcit). Teachers' beliefs vary from beliefs about themselves as persons, to beliefs about their students or learners to beliefs about the learning and teaching process and its educational relevance. Beliefs about teaching, for example, appear to be well established by the time a student gets to college. They are closely related to what we think we know but provide an affective filter which screens, redefines, distorts, or reshapes subsequent thinking and information processing ( Nespor, 1987).the beliefs that an individual holds are not only interconnected, but they are also related to other fundamental features of his personal belief systems.

people's beliefs are difficult to measure that's why they are usually inferred from the ways in which people behave rather than from what they say they behave. Aspects of classroom practice which reflect teachers' beliefs are (Hampton 1994 cited in Richards 1998.):

\*teaching approaches (e.g. teacher-centred or learner-centred, monolingual or bilingual, focus on fluency or focus on accuracy, etc)

\* types of materials (e.g. locally produced, authentic materials, students-generated texts, multimedia, etc)

\* Types of activities (e.g. presentation, discussion, pair work, group work, games, role play, etc)

Consequently, if teachers are to be effective in whatever approach they choose, it seems logical to act consistently in accordance with their expressed beliefs (Williams and Burden, 2000:53). Unfortunately, According to some researchers, this hardly ever occurs in any profession. They argue that there is always a discrepancy between what professionals (here teachers) say they behave ('espoused' theories) and the ways in which they act (their 'theories-in-action'). These studies have found out the need for researchers on teachers' beliefs to go beyond what teachers profess to do in classrooms and to observe their actual practice. Studies attempted to explain why there is such discrepancy between theory and practice and why teachers tend often to teach in ways contrary to the methods they encountered and learned.

A number of studies have attempted to investigate the extent to which teachers' beliefs influence their classroom practice. In the sample of the teachers she studied, Johnson (1992, cited in Richards 1998: 69) indicated three different methodological beliefs adopted by teachers: a skills-based approach (it views language as consisting of four discrete language skills), a rules-based approach (it views language as a process of rule governed creativity), and a function-based approach (it focuses on the use of authentic language within situational contexts).

She found that when teachers representing each theoretical orientation were observed, the majority of their lessons were found to be consistent with their theoretical orientation.

Woods (1991, cited in Richards 1998: 69), another scholar who explored the relationship between teachers' beliefs and classroom practices, conducted a longitudinal study of two teachers with different theoretical beliefs. The two teachers taught the same ESL course in a Canadian university. One of the teachers had a "curriculum-based" orientation while the other "a student-based" orientation. Woods' findings showed that the teacher who adopted a "curriculum-based" approach tended to evaluate her teaching in terms of how successfully she had accomplished what she had pre-planned according to the curriculum, while the teacher who had a "student-based" approach organized her teaching based on students' responses.

Smith (1996) who also studied the beliefs of ESL teachers in postsecondary ESL classes in Canada, his research indicated that teachers' instructional decisions were highly consistent with their expressed beliefs and that personal beliefs system influenced how teachers ranked their institution's explicit course objectives for the courses they were assigned to teach. Teachers with a structured grammar-view of language chose different goals from teachers holding a functional view of language.

All the studies cited so far indicate a positive correlation between the teachers' beliefs and the classroom practice. This could be due to the fact that in all of these cases, the teachers were relatively free to put their beliefs into practice in the classroom. However, these findings may not be reproducible in all contexts. Indeed, there are cases where there is no significant correlation between teachers' beliefs and their classroom practices.

In their study of eight reading teachers, Duffy and Anderson (1986, cited in Richards 1998: 70) found that only four of them consistently employed practices that directly reflected their beliefs. Similarly, in a study of ESL teachers in Singapore, Yim (1993, cited in Richards 1998: 70-71) found that the beliefs that these teachers expressed about the role of grammar in language teaching were not noticeable in their classroom practices.

The reason why teachers' beliefs have an impact on their classroom practice more evidently in some cases than in others is to be found in the fact that teaching situations may vary considerably in different contexts. The context in which teachers operate plays a very important role in determining the extent to which they can put their beliefs into practice.

## **2. Teachers' Attitudes :**

In the same way as teachers' beliefs were examined in the first section, this second section will deal with teachers' attitudes. The section examines the notion of attitude in terms of definitions, aspects, components and the way it is linked to behaviour.

### **2.1. The Notion of Attitude:**

The term attitude is quite common and popular in English language; probably everyone has a notion of its meaning. Attitude is an interdisciplinary concept. Not just psychologists but also sociologists, Political scientists, communication researchers, and anthropologists all study attitudes. The field of social psychology has always showed a high interest in the study of attitude since its inception. Gordon Allport, a famous figure in social psychology, started his highly influential chapter on the topic with the following observation

*“The concept of attitude is probably the most distinctive and indispensable concept in contemporary social psychology ...this useful, one might almost say peaceful concept has been so widely adopted that it has virtually established itself as*

*the keystone in the edifice of American social psychology. In fact several writers (Bogardus, 1931; Thomas and Znaniecki, 1918; Folsom, 1931) define social psychology as the scientific study of attitudes". (G.Allport., 1932:784 cited in Albarracin&al(2005))*

## **2.2. Definition of Attitude:**

Given this centrality, one might expect to find great consistency over years and consensus across scholars in the discipline on a definition of attitudes. But such is certainly not the case. Throughout history in social psychology, the attitude construct has been defined in a myriad way. Core to most definitions has been that attitudes reflect evaluations of the objects on a dimension ranging from positive to negative.

Attitudes are important in their own right, regardless of their relation to a person's behaviour. Your attitudes toward various individuals, institutions, and social issues (e.g., a political party, the church, capital punishment) reflect the way you perceive the world around you, and they are worth studying for their own sake.

There has been little overlap between the definitions of attitude suggested by different social scientists. What is sure is that the scientific meaning of the word is different from its colloquial or slang meanings (Oskamp&Schultz, 2005:22).Originally the term "attitude" referred to a person's bodily position or posture, and it is still sometimes used in this way. In social science, however, the term has come to mean a "posture of the mind," rather than of the body. In his careful review, Allport (1935) as cited in Albarracin&Al(2005) mentioned a number of varying definitions and concluded with his own comprehensive one:



*“An attitude is a mental or neural state of readiness, organized through experience, exerting a directive or dynamic influence upon the individual's response to all objects and situations with which it is related.”*

*(G.Allport, 1935: 810 cited in Albarracin& Al. (2005))*

His definition, though is complex, emphasises two crucial aspects that contribute a lot in understanding the concept of attitude. The following part will deal with the aspects of attitude. In their definition, Fishbein&Ajzen(1975), emphasises the learned nature of attitudes: *“An attitude is a learned predisposition to respond in a consistently favourable or unfavourable manner with respect to a given object.”* (Fishbein&Ajzen, 1975: 6)

However, Eagly&Chaiken (1993) have omitted that aspect through their evaluative definition of attitudes: *“Attitude is a psychological tendency that is expressed by evaluating a particular entity with some degree of favour or disfavour.”*

*(Eagly&Chaiken, 1993: 1).*

Huskinson and Haddock (2006) defined attitudes as: *“Overall evaluations of stimuli that are derived from the favorability of an individual's affects, cognitions, and past behaviors”*(Huskinson and Haddock ,2006: 453)

### 2.3. Aspects of Attitude:

Attitudes are characterised by two core aspects. The first, which is the central one, refers to “readiness for response”. That is, an attitude is not behaviour, not something that a person does; rather it is a preparation for behaviour, a predisposition to respond in a particular way to the attitude object. The term attitude object is used to include things, people, places, ideas, actions, or situations, either singular or plural. This aspect appears in many other definitions like that of Jung (1971): “*readiness of the psyche to act or react in a certain way*” (Jung, 1971: 687) as cited in Oskamp & Schultz (2005).

The second aspect is the “motivating” or driving force of attitudes. That is, attitudes are not just passive result of past experiences. Instead they have two active actions expressed by Allport as “exerting a directive or dynamic influence”. “Dynamic” means that they impel or drive behaviour. “Directive” means that they guide the form and manner of behaviour into specific channels, encouraging some actions and deterring others.

Attitudes are characterised by other essential features like their relatively “enduring nature”, though it is not true for all attitudes (some attitudes can be stable whereas others can be changeable).

The evaluation aspect of attitudes, which is the disposition to respond in a favourable or unfavourable manner to given objects, has been increasingly stressed by recent research. For instant, Olson & Maio (2003) define attitudes as “*tendencies to evaluate objects favourably or unfavourably*”(2003:299). Bem(1972) defines attitudes as “*Attitudes are likes and dislikes*” (1972:14) cited in Oskamp & Schultz(2005: 8), this simple definition emphasises the importance of the evaluative aspect of attitudes.

To summarize we can say that in general “Attitude” is a hypothetical construct that represents an individual's like or dislike for an item. They are positive, negative or neutral views of an "attitude object". People can also simultaneously hold a positive and a negative bias towards the attitude in question. All attitudes take a stance - positive or negative - but they can vary in intensity”

#### **2.4. Components of Attitude**

The study of attitudes is one of the major research areas in social psychology. Social psychologists are interested in the components of attitudes, how attitudes develop, and how they change. There are several main theoretical viewpoints about the essential components of attitude(Olson & Maio,2003).An older one is the tripartite theory or the tri-componential view point which embraces the notion that attitude has three components :Affect, Cognition or Behaviour (the ABC of attitude). Traditionally, “affect” describes the positive or negative feeling that one holds toward an attitude object (Clore&Schnall: 2005). “Cognition” refers to the thoughts about the attitude object, and “behaviour” refers to the overt actions and responses toward the attitude object. This viewpoint has enjoyed a long history; however, subsequent researchers demonstrated that these three components are distinguished from each other (Breckler, 1984; kothandapani, 1971; ostrom, 1969) cited in (Fabrigar 2005:82).

Without denying the importance of early contributions, current attitude researchers have modified the tripartite theory (e.g., Cacioppo, Petty, &Geen, 1989; Petty &Cacioppo, 1986; Zanna&Rempel, 1988 cited in *ibid*). These theorists have argued that affect can best be described as consisting of specific and distinct emotional states, in contrast to the more generally evaluative "*approval or disapproval*" or "attribution of good or bad qualities".

Moreover, the traditional tripartite theorists tended to imply that all three components were constituting the "anatomy" of an attitude or were three types of possible responses to a stimulus (Clore & Schnall:2005). In contrast, the contemporary view holds that an attitude is an entity distinguishable from the classes of affect, behaviour, and cognition. An attitude, therefore, does not consist of these elements, but is instead a general evaluative summary of the information derived from these bases (Cacioppo et al., 1989 cited in Fabrigar2005:82).

With this shift to considering attitude as conceptually separable from the bases of the attitude, research has addressed the potential differences across attitudes primarily based on affect, cognition, or behaviour. A fair amount of research has addressed attitudes based primarily on affect or cognition (including studies that have experimentally created such attitudes in the absence of past behaviour), but less attention has been given to attitudes with purely behavioural bases. Consistent with Bem's self-perception theory, social perceivers might sometimes directly infer an attitude from past behaviours. Yet, because these past behaviours could also have influenced beliefs or emotional responses, it is also plausible for effects of past behaviour to be mediated by these classes of responses (Olson & Stone: 2005). Although some research has attempted to control for behavioural effects on beliefs (e.g., Albarracm & Wyer, 2000), investigations controlling for both beliefs and affect have yet to be conducted.

One traditional view of attitudes is that they have three interrelated components: cognitive, affective, and behavioural. A later approach is to consider these three aspects as separate and distinct entities, calling them beliefs, attitudes, and behavioural intentions. A third viewpoint, called a latent process approach considers attitudes as unobservable intervening variables, which must be inferred from observable responses. It holds that attitudes can arise from stimulus events through cognitive, affective, and/or behavioural processes, and that they can be demonstrated by any or all of these three types of responses.

## **2.5. Attitude as Predictors of Behaviour**

Many researchers wish to assert a causal relationship between attitudes and behaviour, where attitudes are thought to be the cause of behaviour (Jaccard&Blonton, 2005:146).

A careful examination of the different definitions of attitude can show an explicit link between attitude and behaviour. Given this link, it's not surprising that a large amount of research and theorizing has been devoted to the relationship between attitudes and behaviour (ibid: 126). However, some theorists have divorced definitions of attitudes from behaviours, arguing that including behaviour in the definition is a tantamount to building a theory of attitude –behaviour relations within a definition of a construct (e.g.Eagly and Chaiken, 1993).Even so, few would agree with the idea that a central source of interest in the attitude construct was and still is its promise in helping us to understand and predict the behaviour of individuals. Although behaviour has served as an outcome variable in a wide range of attitude theories and research, it also has taken on an important role in theories of the determinants of attitudes. For example, theories of cognitive dissonance (Festinger,1962) emphasize how people adjust their beliefs and attitudes in order to be consistent with their past behaviours.

Social psychologists have determined few factors that increase the correlation between a person's attitude and actual behaviour. First, the attitude should be highly specific. Then it should be accessible. Accessibility refers to the strength of an attitude, or how quickly that attitude comes to mind in response to the attitude object. Accessibility depends on direct experience and rehearsal.

### **3. Attitude, Belief and Behaviour:**

This section examines the nature of the relationship between attitude, belief and behaviour. It presents a brief historical background about the relationship between attitude, belief, and behaviour, then it demonstrates the extent to which teachers' beliefs and attitudes toward an innovation (here electronic learning) can influence their teaching practices

#### **3.1. The Influence of Attitude and Belief on Behaviour**

##### **3.1.1 Brief historical overview**

In the early days of attitude research, a large body of investigations indicated that human behaviour is guided by social attitude. Indeed, the field of social psychology was originally defined as the scientific study of attitudes (Thomas & Znanieski, 1918; Watson, 1925 cited in Ajzen & Fishbein 2005: 174) since it was accepted that attitude was the key to understanding human behaviour. Early research hasn't given any evidence to doubt this assumption. However, some investigators came out to challenge that view and demonstrate that attitudes are actually poor indicators of behaviours.

This begins with LaPierre (1934 cited in *ibid*), and his travel with a Chinese couple (*For approx 2 years LaPierre travelled around the U.S.A with a young Chinese couple. They stopped at 184 restaurants and 66 hotels. They were refused service only once and on the whole received a better than average standard of service from the establishments visited. After returning from 2 years travelling around, LaPierre wrote to all the businesses where he and the Chinese couple had dined / stayed. In a letter which gave no indication of his previous visit, he enquired whether they would offer service to Chinese Visitors and the response was overwhelmingly negative.*

The study resulted in an inconsistency between the symbolic attitudes and the actual behaviour. In 1937, Corey undertook a second research, accepting the proposition that attitudes guide behaviour, he tried to use a measure of attitude toward cheating in the classroom (Corey, 1937 in *ibid*). Contrary to what he has expected, there was virtually no correlation between the student's attitudes and their cheating behaviour.

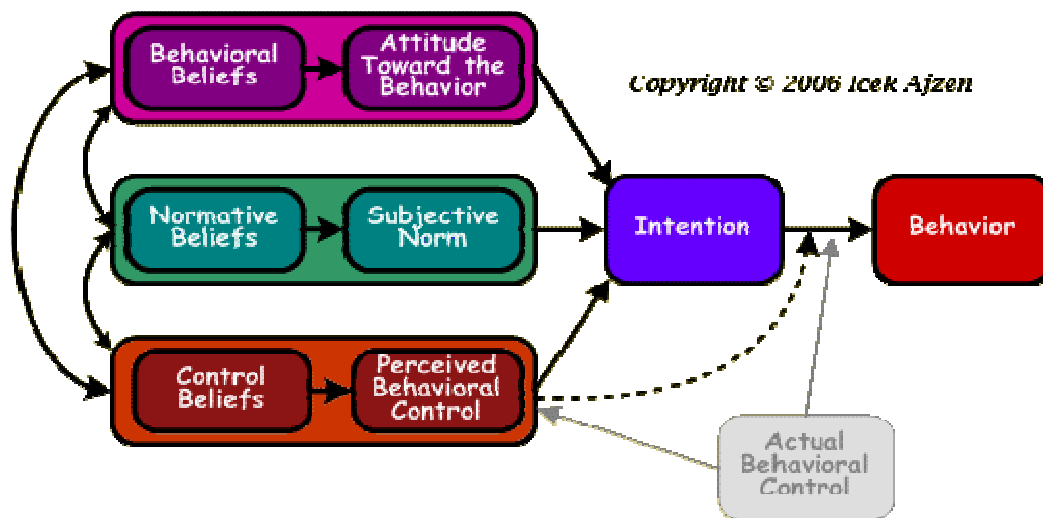
The succeeding years witnessed an increased interest in the attitude-behaviour relation. By the late 1960's, at least 45 separate studies had been reported. The results of these studies were extremely discouraging, especially for people who rely on attitude to explain human behaviour. Consequently, many psychologists began to question the existence of the attitude construct (e.g. Blumner, 1955; Campbell, 1963; Deutscher, 1966; Festinger, 1964 cited in *ibid*). Based on his provocative review of relevant studies on the lack of correspondence between expressed attitude and behaviour, Wicker (1969:69) cited in (*ibid*) called for abandoning the attitude construct and reached the following conclusion:

*“ taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated to or only slightly related to overt behaviours than that attitudes will be closely related to actions. Product-moment correlation coefficients relating the two kinds of responses are rarely above .30 and often are near zero ”.*

Wicker's conclusions came as a surprise to many psychologists who, like Gordon Allport (1986: 59) cited in Albarracín & Al. (2005), regarded attitude as “the most distinctive and indispensable concept in contemporary American social psychology”. Sustaining their conviction in the predictive validity of attitudes, some investigators defended the attitude construct by questioning the relevance of the major studies included in Wicker's review and pointing to methodological flaws. Hence it became obvious that this issue could no longer be neglected, and it obliged the field to check out the underlying supposition that attitudes can help understand and predict behaviour.

### 3.1.2 Ajzen's Theory of Planned Behaviour

Many investigations were interested in studying the numerous factors influencing teacher behaviour and to what degree attitude and beliefs represent cognitive, affective or evaluative qualities. Ajzen's theory of planned behaviour is one of these studies that endeavoured to elucidate the complex inter-relationships between beliefs, attitudes and actions. The theory of planned behaviour (TPB) is an extension from the theory of Reasoned action which was proposed by Martin Fishbein together with Icek Ajzen in 1975. Briefly, according to TPB, as it is described in Ajzen's research (Ajzen 1991; Ajzen 2002, Ajzen & Gilbert 2008, Ajzen & Czasch 2009), human action is guided by three kinds of considerations: behavioural beliefs, normative beliefs and control beliefs. A schematic description of the theory is shown in figure (1)



**Figure (1)** Theory of Planned Behaviour (Ajzen 2008: 301)



**3.1.2.1. Behavioural Beliefs** (beliefs about the likely consequences of the behaviour) Behavioural beliefs link the behaviour of interest to expected outcomes. A behavioural belief is the subjective probability that the behaviour will produce a given outcome. Although a person may hold many behavioural beliefs with respect to any behaviour, only a relatively small number are readily accessible at a given moment. It is assumed that these accessible beliefs -- in combination with the subjective values of the expected outcomes -- determine the prevailing attitude toward the behaviour. Specifically, the evaluation of each outcome contributes to the attitude in direct proportion to the person's subjective probability that the behaviour produces the outcome in question (**Ajzen 1991; Ajzen 2002, Ajzen& Gilbert 2008, Ajzen&Czasch 2009**)

**3.1.2.2. Normative Beliefs** (beliefs about the normative expectations of others) Normative beliefs refer to the perceived behavioural expectations of such important referent individuals or groups as the person's spouse, family, friends, and -- depending on the population and behaviour studied - - teacher, doctor, supervisor, and co-workers. It is assumed that these normative beliefs -- in combination with the person's motivation to comply with the different referents -- determine the prevailing subjective norm. Specifically, the motivation to comply with each referent contributes to the subjective norm in direct proportion to the person's subjective probability that the referent thinks the person should perform the behaviour in question (ibid)

**3. 1.2. 3. Control Beliefs** (beliefs about the presence of factors that may facilitate or impede performance of the behaviour). Control beliefs have to do with the perceived presence of factors that may facilitate or impede performance of behaviour. It is assumed that these control beliefs -- in combination with the perceived power of each control factor -- determine the prevailing **perceived behavioural control**. Specifically, the perceived power of each control factor to

impede or facilitate performance of the behaviour contributes to perceived behavioural control in direct proportion to the person's subjective probability that the control factor is present (ibid).

In their respective aggregates, behavioural beliefs produce a favourable (positive) or unfavourable (negative) attitude toward the behaviour, normative beliefs result in perceived social pressure or subjective norm (a **subjective norm** is an individual's perception of social normative pressures, or relevant others' beliefs that he or she should or should not perform such behaviour), and control beliefs give rise to perceived behavioural control (a **Perceived behavioural control** is an individual's perceived ease or difficulty of performing the particular behaviour. In combination, attitude toward the behaviour, subjective norm, and perception of behavioural control lead to the formation of a behavioural intention (indication of an individual's readiness to perform a given behaviour. It is assumed to be immediate antecedent of behaviour (Ajzen, 2002). It is based on attitude toward the behaviour, subjective norm, and perceived behavioural control, with each predictor weighted for its importance in relation to the behaviour and population of interest). As a general rule, the more favourable the attitude and subjective norm and the greater the perceived control, the stronger should be the person's intention to perform the behaviour in question.

In a context of implementing educational innovation, Ajzen's theory distinguishes between attitudes and beliefs, stating that beliefs are cognitive and reflect the knowledge or information an individual has about a specific innovation, whereas attitudes reflect an individual's affective and evaluative response to that innovation. Beliefs form the foundation of not only attitudes but also what Ajzen refers to as subjective norms and perceived behavioural control. Subjective norms are an individual's perception of what authority figures and others believe about that innovation. Perceived behavioural control describes an individual's perception of one's degree of control over his / her capability of implementing the innovation. This perception of control can be internal, relating to one's confidence and/or skills necessary to implement the innovation, or can be external constraints limiting an individual's control over the innovation. These three factors: attitude, subjective norms and perceived behavioural control, all influenced by one's beliefs, together shape an individual's intentions which eventually translate into

specific action applying the innovation.

### **3.2. Teachers' Beliefs, the Process of Change and Resistance to Innovation:**

#### **3.2.1. Teachers' Beliefs and the Process of Change**

The nature of teachers change is crucial to the field of foreign language teacher education. Since most of what is done in teacher education seeks to initiate change of one sort or another, it is important to try to better understand the nature of change and how it comes about. The nature of what is meant by change is complex and multifaceted. Bailey (1992) cited in Marsh & Wallace (2005) like other researchers consider change as a process that can refer to many things such as: knowledge, beliefs, attitudes, understandings, self awareness, and teaching practices. Freeman (1989) cited in (ibid) highlights a number of aspects of the notion of change:

- Change does not necessarily mean doing something differently; it can mean a change in awareness. Change can be an affirmation of current practice...
- Change is not necessarily immediate or complete. Indeed some changes occur over time, with the collaborator serving only to initiate the process.
- Some changes are directly accessible by the collaborator and thereafter quantifiable, whereas others are not.
- Some types of changes can come to closure and others are open-ended.

Teacher education is normally predicated around the need to provide opportunities for thoughtful, positive change. Pennington (1996:132) considers positive change as vital to the professional life of a teacher, she further explains that “*a distinguishing characteristic of the notion of teaching as a profession is the centrality of career growth as an ongoing goal*”.

According to Clark and Peterson (1986) cited in (opcit), the most “core” teachers’ beliefs are formed on the basis of teachers own schooling as young students while observing teachers who taught them. Subsequent teacher education appears to not disturb these early beliefs, not least, perhaps, because it rarely addresses them. And if teachers actually try out a particular innovation which does not initially conform to their prior beliefs or principles and the innovation proves helpful or successful, then accommodation of an alternative belief or principle is more possible than in any other circumstance. Bailey (1992) cited in Marsh & Wallace(2005) affirms the notion that changes in teachers’ beliefs precede changes in their teaching practices. Teachers’ beliefs strongly affect the materials and activities they choose for the classroom.

One common theme or conclusion in the literature about teachers’ beliefs is that changing them is a complex, perhaps even, mysterious process. The notion of teacher change is multidimensional and is triggered both by personal factors as well as by the professional contexts in which teachers work. Contrary to the attempts of theorists and those involved in trying to promote teacher professional development, teacher’s beliefs appear to be static (Nespor, 1987), resistant to change, and are generally not affected by reading and applying the findings of educational research (Cuban 1986). Among the reasons of this resistance is the nature of the teaching profession itself.

Teaching is a profession with vague and often contradictory goals that are characterized by a paradox of constancy and change (ibid). Teachers are often responsible for ensuring their students obtain learning outcomes that are quite contradictory. These conflicting expectations of educational systems have included goals such as:

- Socialize all children, yet cultivate individual creativity
- Teach literature, classical knowledge but ensure practical skills for marketability
- Demand obedience to authority but encourage individual thought and criticism
- Cultivate cooperation, but prepare children to compete (ibid)

To cope with these conflicting messages, teachers have constructed a practical pedagogy, based largely on their belief and attitudes that provide a supportive framework in such chaotic environment. Beliefs and attitudes therefore become a source of guidance in times of uncertainty and play a major role in defining teaching tasks” (Dwyer et al., 1990:39)

Given the fact that teachers have developed a pedagogy that functions well in these continuously threatened contexts, when confronted with innovation and change such as in the case of educational technology and the emergence of electronic learning and distance education, teachers have the tendency to question the legitimacy of these technologies, without clear proof of their effectiveness( Albaugh, 1997).

### **3.2.2 Acceptance of innovation or resistance to change:**

*“People resist to changes that appear to threaten basic securities. People resist proposed changes they do not understand. People resist being forced to change. Changes generated in one subculture where science and technology are highly valued, if they are to be accepted in another subculture, must be made understandable and given clear value.”* (Spicer cited in Cuban, 1986:108)

Cuban (1986:108) quotes Edward Spicer, the anthropologist, extracting some statements after his studies on the impact of change upon varied cultures. Statements made by Spicer on the findings of his study conducted right after the World War II sound like today’s clichés, similar to Niccolo Machiavelli’s expression in the Prince on one of the essential characteristics of mankind: *“there is nothing more difficult to plan, more doubtful of success, nor more dangerous to manage than the creation of a new order of things”*

Today, while the benefits of utilization of educational technology such as information interactive technology (IT), Information interactive technology (IIT) and Information communication technology (ICT) for instructional purposes are plentiful. Although the number of researches indicating the increasing use of IT, ICT and IIT by teaching staff is increasing recently, neither IT has become integrated in the teaching-learning process nor adoption and diffusion of ICT and IIT has been experienced as it has been intended.

There are barriers to the integration of ICT, and these barriers prevent the adoption and diffusion of technology by higher education institutions, as well as other wide range of organization. The adoption and diffusion issues have also been the subject of many researchers for the last decades, most of which have been based on the Roger’s general diffusion of innovations theory (Rogers: 2000)

Adoption is a difficult process, requiring commitment, investment, and a well-focused strategy. Rogers (2000) quotes Waller Bagehot from his physics and politics in 1873:

*“One of the greatest pains to human nature is the pain of a new idea...it makes you think that after all, your favourite notions may be wrong, your firmest beliefs ill-founded...Naturally, therefore, common men hate a new idea, and are disposed more or less to ill-treat the original man who brings it”*

In order to facilitate the process for adoption, researchers are still trying to investigate the underlying factors of resistance and hesitance for ICT use by some teaching staff, despite some others' enthusiasm, motivation and readiness and some are trying to propose models for adoption of technology (ibid).

With regard to adoption of technologies, specifically of distance learning, in their studies on the perspectives of administrators, faculty and support units and their impact on the rate of adoption of distance learning technologies can be enhanced through revised policies, procedures, and strategies.

### **3.3. Defining teachers beliefs and attitudes toward technology use**

After examining the nature of teachers' beliefs and attitudes, here is a comprehensive definition combining teachers' beliefs, attitudes and technology use since it is the innovation example dealt with in this study.

While issues of second language teacher resistance to computer technology have been discussed in a number of studies (Diamond, 1997; Lam, 2000; Leh, 1995; Moore & al.1998), the nature of relationship among factors contributing to teacher belief systems, which ultimately influence teachers' use of technology, remains ill-defined. Earlier research generally limits its analysis to attitudes or beliefs which are often discussed interchangeably, neglecting further analysis of the multiple factors that may be contributing to those belief systems, thereby failing to define belief terminology (Cuban, 1986; Diamond, 1997; Dwyer et al., 1990; Leh, 1995; Moore et al., 1998; Schofield, 1995). Even within the literature that discusses the impact of computer technology on educational environments in general, very few scholars specifically attempt to define the complex, multiple variables that create belief systems.

Within the literature that attempts to break down the complexity of factors directing teachers' behaviour, there appears to be little consensus and substantial confusion over definitions of factors constituting beliefs and attitudes, and their impact on teaching practice. A number of scholars take a comprehensive view of attitudes as being made up of cognitive and affective elements, not referring to beliefs (Kennedy & Kennedy, 1996: 335). For example, a study byMcFarlane, Hoffman & Green( 1997) revealed that teachers' attitudes toward computers have distinctive affective and evaluative components. Nespor(1987), on the other hand, in her discussion of teachers belief systems, define beliefs as relying heavily on affective and evaluative components.



Sofranova(1993) who specifically studied teacher attitudes towards computer technology, define attitudes as a somewhat subconscious state which would be revealed “without thinking too much”(1993:7).Newman(1987) writes of the importance of uncovering assumptions when teaching, again implying the subconscious belief systems, Lowther and Sullivan(1994) acknowledge that numerous factors including teachers’ needs, wants, beliefs, and practices, as well as educational settings are important in determining attitudes towards the use of technology in teaching. In a study examining teacher attitudes toward innovational teaching approach in Hong Kong schools, researchers found again that despite positive attitudes towards the innovation, contextual constraints, attributed partly to sociological and cultural biases, limited the integration of this innovation in the curriculum (Morris, 1998).

A number of studies have more recently identified specific factors influencing teachers’ attitudes, beliefs towards computers and subsequent use of computer applications in education by teachers. A study examining Mexican teachers and high school students across different states in Mexico found that teacher and student attitudes towards computers were influenced by issues of access to computer technology and the degree of quality of computer equipment (ibid). In this same study, more general access and better quality and variety of computer applications resulted in more positive attitudes towards computers among both students and teachers.

Two studies found that perceptions of functionality or utility of computers had an influence on teacher attitudes and beliefs towards computer technology in education (McEneaney, Soon, &Linek, 2000; Mitra et al., 1999). One of these studies examined pre-service teacher attitudes towards computer technology and found four factors influencing these attitudes.

These four factors consisted of the teachers' general attitudes toward computers, positive feelings about computers, negative reaction towards computers and their perception of the utility of computers (McEneaney et al., 2000).

This study based itself on an earlier study by Woodrow (1991) that had identified three significant factors, one representing positive attitudes toward computers, the second defining the social and educational impact of computers and the third described as a manifestation of computer anxiety. Another study (Mitra et al., 1999) concluded that positive expectations about the functionality of computer technology positively affected the degree of computer use among college faculty. A study by Lam (2000) found that the principal reason affecting second language teacher choices to use educational technology in practices stems from teachers' personal beliefs in technology's benefits. Lam found that the main reason underlying a second language teacher's intention to use technology depended on whether that teacher was personally convinced of the benefits of technology in second language instruction.

Increased computer experience has also been linked to more positive attitudes towards computers in education (McCain et al., 1999). Research examining relationships between experience with networked computing and attitudes towards computers (McCain et al., 1999) found that increased experience with networked computers lead to a higher sense of power and control over this technology and more positive attitudes towards computers.

## **Conclusion**

The three sections shaping this first chapter presented the theoretical background of the first aspect dealt with in this study which is teachers' attitudes and beliefs. As it has been shown, teachers' beliefs and attitudes are a network of a multi-faceted factors originating from a variety of sources. Teachers' beliefs and attitudes have been characterized by a resistance to change and have been reported to contribute to resistance to educational technology. This study will further show the impact of these beliefs on action and intended action to integrate technology into teaching practices.

**CHAPTER TWO/ DISTANCE EDUCATION & ELECTRONIC  
LEARNING (E-LEARNING)**

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## **Introduction**

This chapter reviews the literature about distance education and e-learning. Distance education will be considered in terms of its history and evolution. The electronic learning and educational technology will also be considered in the same terms. The contribution of both distance education and e-learning to the development of foreign language teaching (FLT) will be examined. Hence, we will shed light on the prominent roles of learners, teachers, and learning strategies that evolved within distance education and e-learning.

### **1. Distance Education**

#### **1.1.Theories of Distance Education**

A number of theoretical approaches and models attempted to identify the basic characteristics of distance education like:

\*Charles Wedemeyer’s liberal, individualizing “independent study”;

\*Manfred Delling process Model

\*Otto peters’ industrialized form of teaching and learning.

\*Forsythe’ Learning System

\*Michael Moore’s theory of independent study

\*David Sewart’s Support Model, called “continuity of concern”

\*Student-centred Approach

(Holmberg, 1995:157)

The prominent contributions have been presented by Charles Wedemeyer, Otto Peters, Michael Moore, Borje Holmberg, Desmond Keegan, D.R.Garisson& John Verdium and Thomas Clark. In his landmark work, *The Foundations of Distance Education* (1986), Keegan classified theories of distance education into three groups: theories of independence and autonomy, theories of industrialization of teaching, and theories of interaction and communication. A fourth category seeks to explain distance education through a synthesis of existing theories of communication and diffusion as well as philosophies of education. Each of these major categories will be discussed below.

### **1.1.1. Theories of Independence and Autonomy:**

Theories of independence and autonomy encompass two versions: an American version led by Wedemeyer and a European one led by Moore.

#### **1. Wedemeyer's Theory:**

For Wedemeyer, the students' independence is the essence of distance education ( Saba, 2004).according to him , students get their independence through different means like the possibility to learn anytime and anyplace as well as the opportunity to rule and organise their own learning (ibid).

He set forth a system of distance education that includes ten characteristics which emphasize learner independence and the adoption of technology as a way of implementing it. According to Wedemeyr(1981) cited in Holmberg, the instructional system should:



1. Be capable of operating any place where there are students-even only one student-whether or not there are teachers at the same place, at the same time;
2. Place greater responsibility for learning on the student;
3. Free faculty members from custodial-type duties so that more time can be given to truly educational tasks;
4. Offer students and adults wider choices (more opportunities) in courses, formats, and methodologies;
5. Use, as appropriate, all the teaching media and methods proven effective;
6. Mix and combine media and methods so that each subject or unit within a subject is taught in the best way known;
7. Cause the redesign and development of courses to fit into an articulated media program;
8. Preserve and enhance opportunities for adaptation to individual differences;
9. Evaluate student achievement simply, not by raising barriers regarding the place, rate, method, or sequence of student study; and
10. Permit students to start, stop, and learn at their own pace.

(Holmberg, 1995:8)

## **2. Moore's Theory:**

The theory of independent learning and teaching according to Moore is composed of two dimensions: '**transactional distance**' and '**learner autonomy**'

### **a. Transactional Distance:**

According to Moore, the concept of distance has to be considered as a multi-dimensional concept involving more than geographical distance (Rouchanzamir 2004; Keegan 1993).

Moore (1991) described transactional distance as follow:

*“The transaction that we call distance education occurs between individuals who are teachers and learners, in an environment that has the special characteristic of separation of one from another, and a consequent set of special teaching and learning behaviours. It is the physical separation that leads to a psychological and communications gap, a space of potential misunderstanding between inputs of instructor and those of the learner, and this is the transactional distance.”*

(Amundsen,1993 :56)

The transactional distance comprises two functional variables: **structure** and **dialogue**.

**\*Dialogue** expresses *‘the extent to which, in any educational program, the learner, the program and the educator are able to respond to one another’* (ibid: 57). Dialogue and interaction are generally used interchangeably, though :

“dialogue is used to describe an interaction or series of interactions having positive qualities that other interactions might not have...the direction of the dialogue in an educational relationship is towards the improved understanding of the student.”

(Moore, 1993:21)

**\*Structure**, is defined as *‘a measure of an educational program’s responsiveness to learners’ individual needs’* (opcit).in other words:

“Structure refers to the design of the instructional program while dialogue refers to the interaction through communication of the learner and the educator. In sum, Moore shifted the debate concerning distance learning by pushing it into the arena of pedagogical differences.”

(Rouchanzamir 2004,10-11)

“The extent of structure in a programme is determined largely by the nature of the communications media being employed, but also by the philosophy and emotional characteristics of teachers, the personalities and other characteristics of learners, and the constraints imposed by educational institutions.”

(Moore, 1993:23-24)

In sum, Moore’s transactional distance focuses on the following set of variables:

- 1- the instructional dialogue
- 2- the communications media
- 3- the program structure
- 4- the selection and integration of the communications media
- 5- the autonomy of the learner

According to Moore “Successful distance teaching depends on the institution and the individual instructor providing the appropriate opportunities for dialogue between teacher and learner, as well as on appropriately structured learning materials”(ibid)

Structure and dialogue represent a fusion of two pedagogical traditions: a humanistic tradition lying in the importance of interactions and dialogues in the educational setting, and a behaviourist tradition emphasised on designing courses on the basis of behavioural objectives.(ibid)

## **b. Learner autonomy**

The second dimension of Moore's theory is **Learner autonomy** which is linked to transactional distance as Moore stated (*cited in Amundsen 1993:7*): "*the greater the transactional distance, the more autonomy the learner has to exercise*". The degree of learners' autonomy according to Moore is exercised through the selection of learning objectives, the selection of study methods and use of learning materials as well as the decision about the methods of evaluation. However, some features of Moore's concept of learner autonomy have attracted a widespread criticism as being too general to describe and justify the differences in learners' motivations, ability and learning approach.(*ibid*)

### **1.1.2. Theory of Industrialisation of Teaching:**

An analysis of distance education indicated that its organization and construction are based on the same rules and laws involved in the industrialization of the working process in the production of goods (Peters,2003).He asserted that:

"Distance education is a product of the industrial society...as an educational option [it] has been successful because it is compatible with the organization, principles and values of the present industrial society."

(Amundsen1993:56).

As an explanation, he compared distance education with the industrial production process and recognized some conspicuous similarities such as division of labour, mechanization, mass production, standardization and centralization (Amundsen 1993).The findings of his comparison can be summarized as follow:

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- The development of distance study courses is just as important as the preparatory work that takes place prior to the production process.

- The effectiveness of the teaching process is particularly dependent on planning and organization.
- Courses must be formalized and expectations from students standardized.
- The teaching process is largely objectified.
- The function of academics teaching at a distance has changed considerably vis@vis university teachers in conventional teaching.
- Distance study can only be economical with a concentration of the available resources and a centralized administration. (Peters, 2003:36)

These results confirmed the industrial characteristics of distance education which separate it distinctly from traditional face to face education; and which should be taken into account when decisions about the process of teaching and learning are to be made.

### **1.1.3. Theories of Interaction and Communication**

While Peter and Moore emphasized on the analysis of distance education in terms of structure and design, Holmberg concentrated rather on the interpersonalization of the teaching process. His theory lies in the concept of “guided didactic conversation”

which represents a *“pervasive characteristic of distance education”*

(Holmberg 1995:47).

*“Guided didactic conversation...refers to both real and simulated conversations, although the reliance is upon simulated conversation. As such the emphasis is very much on the content and conversational character of written pre produced course package” (R. Garrison, 2000:7)*

To better clarify the concept of guided didactic conversation, Holmberg proposed:

1 That feelings of personal relation between the teaching and learning parties promote study pleasure and motivation.

2 That such feelings can be fostered by well-developed self-instructional material and two-way communication at a distance.

3 That intellectual pleasure and study motivation are favourable to the attainment of study goals and the use of proper study processes and methods.

4 That the atmosphere, language and conventions of friendly conversation favour feelings of personal relation according to postulate 1.

5 That messages given and received in conversational forms are comparatively easily understood and remembered.

6 That the conversation concept can be successfully translated, for use by the media available, to distance education.

7 That planning and guiding the work, whether provided by the teaching organization or the student, are necessary for organized study, which is characterized by explicit or implicit goal conceptions.

(Holmberg1995:47)

From these postulations, it's clear that for Holmberg the teacher-learner relationship is of a paramount importance; although this topic has vanished among the recent distance education views that represent it as "delivery system" or "technology" ( saba:2004).

Like Moore, Holmberg regarded real learning as “*an individual activity accomplished through a process of internalization of the teaching process at a distance*” (ibid). He considers also learner autonomy as the ideal.

Holmberg’s theory emphasizes the importance of teaching and communication in carrying out any research about distance education efficacy. (Rouchanzamir: 2004). His theory has been harshly criticised and Holmberg himself came to regret his adoption of the term “guided didactic conversation;” he felt it was misunderstood, perceived as referring to a totalitarian approach to the distance education. Holmberg

explained:“Further, I used a somewhat unfortunate terminology. I referred to the conversational character of distance education as ‘didactic,’ an adjective in many cases taken to indicate an authoritarian approach ( the opposite of what was meant). Instead of *guided didactic conversation*, I now prefer the term *teaching-learning conversion*.” (Holmberg, 2003:79).

These three theories (industrialization, learner autonomy and interaction) represent a sampling of theoretical bases upon which planning, decision-making, and research have been based. Other theories that guide distance education practice include the adoption of innovations, instructional equivalency, communication, systems theory and many other aspects of various domains.

## **1.2. History of Distance Education:**

Distance education is not a new phenomenon even if the term is quite recent (Moore cited in Bunker 2003). Promises of high-quality education that could be taken anytime and anywhere were made early in the 20<sup>th</sup> century with correspondence education as the earliest form of distance education.(Holmberg:1995, pittman:2003). According to Holmberg (1995) correspondence teaching and learning refers to a combined process of teaching and communication in writing by means of self-instructional texts and correspondence between students and tutors. With the increasing technological development, new media emerged to replace the written word and new terms appeared to represent correspondence education like ‘independent study’ , ‘home study’, and ‘distance education’ (UK and Ireland).This latter became formally recognized in 1982 when the International Council for Correspondence Education (ICCE) changed its name to the International Council for Distance Education (ICDE).By 1920’s the majority of universities and schools incorporated radio programmes into their correspondence courses. Later on starting from the 1930’s, instructional activities supported by tv programmes were introduced into distance learning. (Zvacek: 2004).

The last decade witnessed a revolution with the introduction of computer-mediated learning, internet and a variety of other technologies.



### **1.2.1 Distance Education Generations:**

Distance education comprises a number of generations depending on the technological advances. Garrison's use of the term generation relates to building upon previous capabilities: "In other words, new media can be combined with older media to provide a greater range of choice for the design of effective distance education delivery systems" (Garrison, 1985: 236). However, as many researchers point out, an inappropriate use of media can leave distance education bogged down in older paradigms, unable to address the "triple crisis: of access, cost and flexibility". Describing the development of distance education through technology alone misses the significant paradigm shifts in teaching and learning. Although technology innovations enabled today's advanced educational experiences, innovative uses of older technologies fit into new paradigms.

Garrison (1985) categorized distance education technological innovations into three generations: correspondence, telecommunication and computers.

Kauffman and Nipper 1989(cited in Bates, 2005) identified three generations of distance education:

1. Print-based correspondence education (single technology)
2. Multiple-media 'print + broadcasting' (industrial)
3. Two way communication media (internet + videoconferencing)

Peters (2003) identified three generations of distance education and their associated teaching and learning behaviours: the first based on books as the main medium of instruction, the second introduced radio and television in addition to books and the third integrated multimedia technologies and personal computers.

“The PC serves at the same time as a carrier, distribution, display, instruction, and interactive medium. In addition, it provides pedagogically useful services that traditional media are completely unable to do.”(ibid:88-89)

The most comprehensive distance education generations’ model is that of Taylor (2001). He presented five generations of models of distance education and associated delivery technologies. first, the Correspondence Model based on print technologies; second, the Multimedia Model based on print, audio and video technologies; third, the Telelearning Model, based on applications of telecommunication technologies to provide opportunities for synchronous communication;

fourth, the Flexible Learning Model based on online delivery via the Internet, and fifth, the Intelligent Flexible Learning Model which is derived from the forth and exploits further new technologies(Taylor, 2001).The table below explains the five generations ( Taylor 2001).

**Table1: Models of Distance Education - A Conceptual Framewor**

Models of Distance Education and Associated Delivery Technologies	Characteristics of Delivery Technologies				Institutional Variable Costs Approaching Zero
	Flexibility			Advanced Interactive Delivery	
	Time	Place	Pace	Delivery	
<b>First Generation -</b> <b>The Correspondence Model</b> <ul style="list-style-type: none"> <li>• Print</li> </ul>	Yes	Yes	Yes	No	No
<b>Second Generation -</b> <b>The Multi-media Model</b> <ul style="list-style-type: none"> <li>• Print</li> <li>• Audiotape</li> <li>• Videotape</li> <li>• Computer-based learning (eg CML/CAL)</li> <li>• Interactive video (disk and tape)</li> </ul>	Yes	Yes	Yes	No	No
	Yes	Yes	Yes	No	No
	Yes	Yes	Yes	No	No
	Yes	Yes	Yes	Yes	No
	Yes	Yes	Yes	Yes	No

<b>Third Generation -</b> <b>The Telelearning Model</b> <ul style="list-style-type: none"> <li>• Audioteleconferencing</li> <li>• Videoconferencing</li> <li>• Audiographic Communication</li> <li>• Broadcast TV/Radio and Audioteleconferencing</li> </ul>	No	No	No	Yes	No
	No	No	No	Yes	No
	No	No	No	Yes	No
	No	No	No	Yes	No
<b>Fourth Generation -</b> <b>The Flexible Learning Model</b> <ul style="list-style-type: none"> <li>• Interactive multimedia (IMM)</li> <li>• Internet-based access to WWW resources</li> <li>• Computer mediated communication</li> </ul>	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	<b>No</b>
<b>Fifth Generation -</b> The Intelligent Flexible Learning Model <ul style="list-style-type: none"> <li>• Interactive multimedia (IMM)</li> <li>• Internet-based access to WWW resources</li> <li>• Computer mediated communication, using automated response systems.</li> </ul>	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	Yes
	Yes	Yes	Yes	Yes	<b>Yes</b>

### 1.3. Definition of Distance Education:

There is no one definition of distance education, A common point in all definitions is physical separation of instructor and learner, as well as the time element .Series of propositions emerged in defining distance education and almost all of them emphasized the factor of distance(in space and/or in time) between teachers and learners (White:2003)

In1972, Moore defined distance education as:

*"the family of instructional methods in which the teaching behaviours are executed apart from the learning behaviours ... so that communication between the learner and the teacher must be facilitated by print, electronic, mechanical, or other devices"* (Moore, 1972: 76 cited in Moore(1991).

In 1996, in collaboration with Kearsley's, Moore introduced another definition:

*"Distance education is planned learning that normally occurs in a different Place from teaching and as a result requires special techniques of course Design, special instructional techniques, special methods of communication by Electronic and other technology, as well as special organizational and administrative arrangements"* (White, 2003:11)

Keegan (1993), proposed a definition of distance education with the following basic characteristics:

- The quasi separation of the teachers and learner throughout the length of the learning process;
- The influence of an educational organization both in the planning and preparation of learning materials and in the provision of student support services;
- The use of technical media-print, audio, video or computer-to unite teacher and learner and carry the content of the course;
- The provision of two-way communication so that the student may benefit from an even initiate dialogue; and
- The quasi permanent absence of the learning group throughout the length of the learning process so that people are usually taught as individuals rather than in groups, with the possibility of occasional meetings, either face to face or by electronic means, for both didactic ad socialization purposes.

*(Keegan, 1993 :?)*

In his definition, Keegan categorizes 6 dimensions of distance learning: separation between teacher and student; influence of an educational organization; use of media to connect teacher and student; two-way exchange of education; students perceived as individuals, not as groups; education as a form of industrialization (Roushanzamir,2004) . However, through the 25 past years, some of those classes became rather obsolete. For instance, the perception of students as individuals (rather than groups) may no longer be a characteristic feature for distinguishing distance from face to face education .it can be argued that group work is easily accommodated into the most current technologies. *“The quasi-permanent absence of learning groups ... need no longer apply. Groups of learners can cooperate although being geographically separated.” (Holmberg, 2003).*

Keegan's categories may still be suggestive as in the example of individual vs. group orientation; the individuals and/or groups may be differently placed in space and/or time.

Holmberg (1995:2) defined the concept of distance education in terms of communication between students and educational institutions, he claims that distance education refers to a : “ consistent non-contiguous communication between the supporting organization and its students”. This communication can be of two types: one way traffic and two way traffic.

**One way traffic** refers to the teaching exposition. It is described as a simulated communication through which course materials are sent from the supporting organization and involving students in interaction with texts, recorded words and technological devices now; (ibid).

**Two way traffic** refers to the real communication. It is described as the actual/real communication between students and the supporting organisations through telephone interactions, e-mails and technological tools. This enables students' access to personal tutoring and counselling. (ibid)

Putting this communication into consideration, Holmberg (2005:166), proposed the following definition: “distance education is seen as a form of teaching and learning which is not under the supervision of teachers present with their students in lecture rooms or on the same premises but which, nevertheless, benefit from the planning, guidance and teaching of a supporting organisation”

He identified three basic constituents of distance education:

1. The mediated presentation of learning materials
2. interaction between students and tutors
3. peer-group interaction in online learning (ibid)

Williams, Paprock and Covington 1999(cited in White2003,11) defined distance education as “ the teaching-learning arrangement in which the learner and teacher are separated by geography and time”.

Shelly(2000) defined distance education as :

*“an educational system in which learners can study in flexible manner, in their own time, at the place of their choice and without requiring face to face contact with teacher”*(ibid)

Garrison and Archer (2000) cited in (White2003,11) defined distance education in terms onon-contiguous communication between teachers and learners:

*“Distance education must involve two-way communication between teachers and students for the purpose of facilitating and supporting the educational process. Distance education uses technology to mediate the necessary two-way communication”*.

Bates (2005) defines distance education as a method of education in which students chose the time and the place of study without the presence of the teachers. Technology plays a crucial role in delivering distance education programmes. Instructional telecommunication Council’s definition sees it as

*“the process of extending learning, or delivering instructional resource-sharing opportunities, to locations away from a classroom, building or site, to another classroom, building or site by using video, audio, computer, multimedia communications, or some combination of these with other traditional delivery methods”*

## **2. Technology for Learning: Electronic Learning**

### **2.1. Definition of Educational Technology**

There is a wide range of terminology when we deal with technology used for learning. Media, multimedia, information and communication technologies (ICT), information technology (IT), interactive and information technologies (IIT), advanced learning technologies (ALT) are all umbrella terms that cover all advanced technologies in manipulating and communicating information within the learning process. While many things can be defined as technology, for the purpose of this study, I will be looking at computers and related peripherals, I'll also include also include interactive devices and internet access.

#### **2.1.1 Media and Technology**

Media is described by Bates (2005: 43) as *“generic forms of communication associated with particular ways of representing knowledge. Texts, audio, face to face communication and video are all media”*

So in education, according to Bates, there exist five main media: direct human contact, text, audio, video, and digital multimedia.

Technology is used to deliver this knowledge or media like (satellite, cables, video-conferencing, telephone, mobile, CD, computer, e-mail and so on.).these technologies are different in being either one-way or “broadcast” like TV and print, and two way or “communicative” like videoconferencing and mobile.(Bates 2005:44)



### **2.1.2. Classifying the Relationship between Computers and Teaching**

Hokanson and Hooper (2004) based their argument on a distinction between two philosophical approaches: teaching from computers and teaching with computers. Teaching from computers includes things like computer-based instruction, computer-assisted instruction, and integrated learning systems. It can be a tutorial, game or independent learning program. It values transmission of information and is supplantive in nature. Its goals focus on more effective delivery of knowledge and increased skills (Ringstaff& Kelley, 2002). Hokanson and Hooper (2004) argued that teaching from computers alone could only improve access or efficiency. In contrast to teaching from computers, teaching with computers has a wide variety of impacts. Because the values embodied by teaching with computers are generative and transformative, the nature of the goals and the resulting impacts can be felt in many areas (Ringstaff& Kelley, 2002).

## **2.2. Definition of Electronic Learning:**

E-learning covers a wide range of applications and processes to deliver education by means of electronic media that includes computer-based learning, virtual classroom and digital collaborations(Deusdado& Carvalho:2009).

For Rosenberg (2001) “E-Learning refers to the use of Internet technologies to deliver a broad array of solutions that enhance knowledge and performance. It is based on three fundamental criteria:

1. E-Learning is networked, which makes it capable of instant updating, storage/retrieval, distribution and sharing of instruction or information
2. It is delivered to the end-user via a computer using standard Internet technology
3. It focuses on the broadest view of learning solutions that go beyond the traditional paradigms of training” (Rosenberg, 2001:28-29)

Nowadays, different forms of distance learning have emerged comprising: fully online courses, hybrid or blended courses that consist of face to face sessions along with online delivery, and technology-enhanced courses consisting of integrating technology components into face to face traditional courses (Palloff& Pratt: 2007)

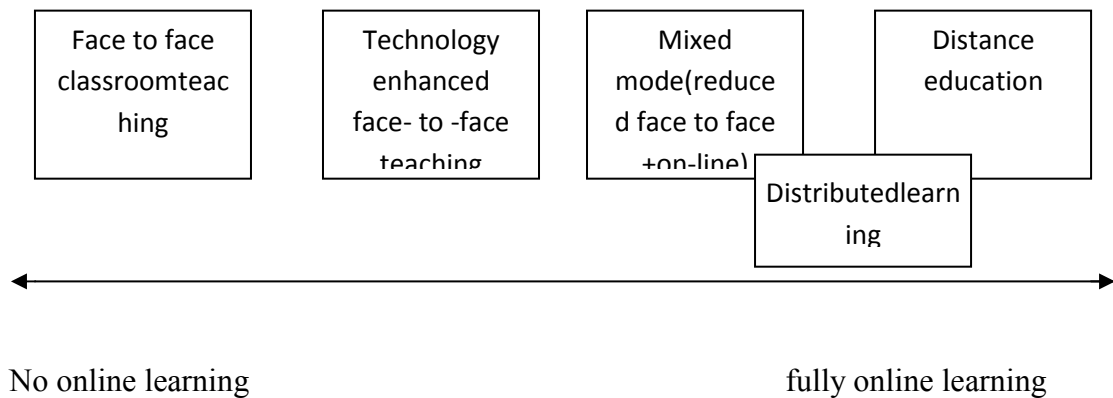
MacDonald & al (2009: 39) define e-learning as a form of “learning that takes place via the internet”. The internet, the World Wide Web and Computer-based multimedia are considered to be primarily technologies of e-learning (Bates, 2005). Bates speaks of three main ways to make use of electronic learning by education institutions:

- 1- technology-enhanced classroom where the web and the Internet are integrated into traditional classroom teaching like other technologies through Web pages, PowerPoint presentations, electronically available course material,etc.,

2- Distance learning to ensure further access to education opportunities for disadvantaged learners, and

3- Distributed learning describing “a mix of deliberately reduced face-to-face

teaching and on-line learning



**Figure 2. Continuum of Technology-based Learning (Bates 2005: 9).**

E-Learning spans distance, but distance learning's broad definition also includes correspondence courses, one-way television courses, or other approaches that don't fit any of the above criteria. So we can say that e-learning is a form of distance learning, but distance learning is *not* e-learning.

### 2.3. Types of E-Learning

Falch (2004) classifies e-learning into four types: e-learning without presence and without communication, e-learning without presence but with communication, e-learning combined with occasional presence, and e-learning used as a tool in classroom teaching (Nagashi and Wilcox, 2008:4). Negash and Wilcox (2008) have extended the classification to six:

E-learning with presence and without e-communication (face to face)

E-learning without presence and without e-communication

E-learning without presence and with e-communication: 'asynchronous'

E-learning with virtual presence and with e-communication: 'synchronous'

E-learning with occasional presence and with e-communication:

'blended/hybrid asynchronous'

E-learning with presence and with e-communication:

'blended/hybrid synchronous'

\* Presence is defined as real-time presence where both instructor and learner are present at the time of content delivery; it includes physical and virtual presence.

\*\* E-communication refers to whether the content delivery includes electronic communication or no.

This role that e-learning has attained is considered as a means to respond to society's educational needs, which have shifted from traditional training of full-time on campus learners to more unconventional forms of education.

### **3. The Evolution of Technology Use in Foreign Language Learning**

#### **3.1. Language Teaching Through Distance Education and E-Learning:**

Teaching and learning a modern foreign language by distance education methods, that is, without teacher and learner meeting face-to-face, has been practised since the end of the 19th century Correspondence courses, supplemented in some cases almost from the beginning by audio recordings have been used to teach a great number of languages, among them English, French, German, Italian, Russian and Spanish.

There is no tenable reason why any language should be considered unsuitable for distance teaching and learning; rather, there is much evidence of the effectiveness of distance teaching of foreign languages (Holmberg, 2005). Implementing language teaching through e-learning courses show great results and proved to be effective even in pronunciation that relies mostly on phonetic transcription (Holmberg:1995)

The literature on the use of technology and, more specifically, computers in language learning, has centred largely on discussions and debates of pedagogical merits of technological devices (Stern, 1983). Approaches, typologies, phases, methods: all have served as focal points for organizing the past 50 years (1950-2000) of technology use in language learning. In her discussion of the role of the computer in language teaching, Garrett (1991) cautions against thinking of it in terms of a method. Instead she argues that it is a medium or an environment in which a wide variety of methods, approaches or pedagogical philosophies may be implemented. Grammar -translation activities, audio-lingual drills, or cognitive analysis of language, or a communicative syllabus: any of these, according to Garrett can comprise Computer-Assisted Language Learning (CALL).

### 3.1.1. Definition of CALL

CALL is an approach to language teaching and learning in which computer technology is used as an aid to the presentation, reinforcement and assessment of material to be learned, usually including a substantial interactive element. (Wang & Kaplan, 2004). CALL is a category of CAL (Computer Aided Learning) that is related to language teaching. Gamper & Knapp (2002) cited in Laghos & Zaphiris (2009: 368) defined CALL as “*a research field which explores the use of computational methods and techniques as well as new media for language learning and teaching*”.

Levy (1999) defines CALL as: “*The search for and study of applications of the computer in language teaching and learning*”

### 3.1.2. History of CALL:

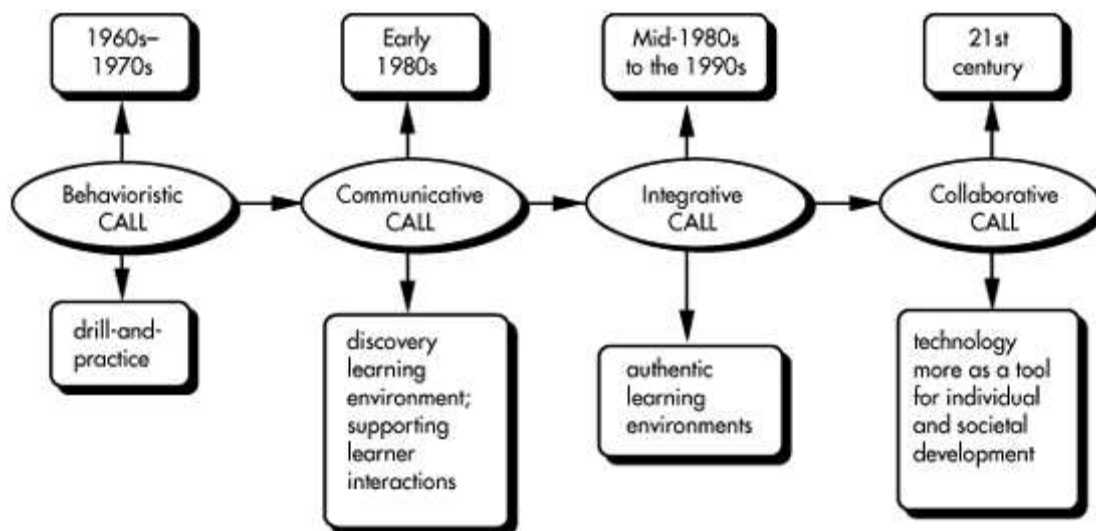
The development of CALL is a mere reflection of computer technological advances along with the evolution of linguistic approaches to language learning (Delcloque 2002, Warschauer: 2002 in Wang & Kaplan: 2004). The development in computer technologies and the pedagogical shifts in language learning have influenced to a great extent the evolution of CALL. CALL started to be implemented from the 1960's. Warschauer (in Wang & Kaplan: 2004) recognizes three phases in its history:

**a. Behaviourist CALL:** it emerged in the 60's and 70's. It was derived from the behaviourist learning approach and used computers in language drills and practice activities for grammar and vocabulary. (Wang & Kaplan 2004, laghos & Zaphiris, 2009)

**b. Communicative CALL:** it emerged in the late 70's and early 80's. it was based on the communicative approach and cognitive theories that sees learning as a process of exploitation . It engaged students into computer-based activities that emphasize on using forms rather than forms themselves, teach grammar implicitly and use the target language exclusively (ibid).

**c. Integrative CALL:** it was implemented in the late 80's and early 90's. Warschauer (1996) in laghos&zaphiris(2009) describe integrative CALL as “a perspective which seeks both to integrate various skills (e.g., listening, speaking, reading and writing) and also integrate technology more fully into the language learning process.” It engaged students in learning environments that integrated different skills in a target language.

Wang & Kaplan (2004), CALL evolution include another class in addition to the three stated by Warschauer which is ‘collaborative CALL’. Collaborative CALL collaborative CALL identifies technology more as a tool for individual and societal development rather than just isolated language and literacy skills (ibid).



*Figure3. Evolution of CALL : source: Wang & Kaplan (2004: 222)*

CALL today is supported with graphics, videos, and sounds and can be divided into three main applications ( Lagos& Zaphiris:2004):

**a.Multimedia CALL:** based on CD-Rom disks that contain an attractive presentation of the material without interaction between students or between teachers and students.

**b.Web-based CALL:** in addition to the CD-Rom it makes use of web-browsers.

**c.Online CALL:** is considered as a form of e-learning and distance learning. “it is the most successful example of CALL services”(ibid: 370). It provides learners not only with the common call services that computers offer but also with WWW Services like chat rooms, e-mails, access to journals, online research and communication with native speakers.(ibid)

CALL arose from the combination of two separate factors: educational needs and technological means. One must not focus exclusively on the technology side of CALL and neglect the pedagogical issues that are extremely important for a successful language learning process. Technology integration in foreign language teaching demonstrates a shift in terms of learning theory from behavioural toward constructivist learning approach (Evans & Nation: 2003) .

### **3.2.E-Learning and the Theory of Constructivism**

Constructivism is defined by Duffy &Kirkley(2004: 109) as “ an action-oriented perspective in that understanding is in the doing;” It says that people construct their own understanding and knowledge of the world, through experiencing things and reflecting on those experiences. When we encounter something new, we have to reconcile it with our previous ideas and experience, maybe changing what we believe, or maybe discarding the new information as irrelevant. In any case, we are active creators of our own knowledge. To do this, we must ask questions, explore, and assess what we know(ibid).



For Koumi (2006:104): “constructivism asserts that knowledge is not passively received but actively built up by the learner, who sets information and organizes it in a way that is individually meaningful”

Constructivism is a philosophy of learning founded on the premise that, by reflecting on our experiences, we construct our own understanding of the world we live in and we construct our knowledge on the basis of what we already know( Duffy &Orill: 2004).

Constructivism theory lies in three key characteristic of learning which are: learning is situated, learning is goal-driven and learning is social (ibid).The new era of language learning draws heavily on these constructivist principles as they relate to language learning. Knowledge construction replaces the earlier knowledge transmission and reproduction. Students become the centre of all instructional process and communication is redefined as a process of social negotiation of meaning and collaborative knowledge sharing (ibid).the computer technologies functioning as tutors, tools, and tutees, support both students and teachers and represents a means to experiment wit new practices by shifting the focus of education from acquiring facts to manipulating and understanding them (Taylor 1980, Squires & MacDougall 1994, Cartelli 2009).

### **3.3.The E-learning Classroom Environment**

Technology advances have provided, and still do, many tools for e-learning. New technology enhanced learning environments (online environment) are created instead of the traditional ones. The environment, the learning theory and the way in which technology is used dictate a change in activities, techniques, roles and learning experiences. Hence for creating a a successful e-learning environment

#### **3.3.1. Technology Selection and Use**

Within e-learning decisions need to be done about the use of specific technology.

*“Since technology is part of the future landscape of learning, knowing when to use it (and when not to) is the first step toward making sense of e-learning.”* (Wiley 2004:5)

Bates (2005:2) stated:

*“Technology is neither good nor bad in itself but it is the way that it is used that matters”.*

Bates emphasizes the importance of good decision making in the success of e-learning programmes and for making good decisions, good understanding of technology use and educational advantages as well as disadvantages of available technologies, plus an understanding of the administrative and managerial measures are a must.

He goes on asserting that: “the choice of technology should be driven not by its novelty but by the need of the learners and the context in which we are working” (ibid:3)

In other words, recent technologies are not positively better or more effective than the older ones, they are different and require a better understanding and control for an efficient application.

According to Norton2001 (cited in Anastasiades 2008), the first phase in transforming the current traditional classroom into the virtual classroom is the appropriate use of technological tools.

Clark& Mayer (2002 cited in Duffy 2008) recommended some general guidelines while considering the proper use of technology like:

- Technology should be aligned with expected learning performance outcome;
- Technology should reduce cognitive load;
- Technology should exclude superficial text or graphics and;
- Should be appropriate for target students' learning literacy.

“The central issue regarding e-learning revolves not around the technology itself, but how it is used (or not used)” (Rayburn & Ramaprasad: 2002: 38)

### **3.3.2 Developing E-learning Courses**

Developing e-learning courses is not an easy task; it takes too much time in terms of research, design, development and learner support (MacDonald & al: 2009). According to MacDonald & Thompson (2005) cited in (ibid), the most important incentives for online courses creation are the professor's determination, his aptitude and

capacity to organize and mobilize the necessary resources as well as his willingness to take risks.

Bates (2005) identifies three key areas of interest in e-learning: quality standards, teacher and student work load and costs.

The common aims behind e-learning integration into schools and universities fall into three Categories: improving the efficiency of instruction, reaching new students, and making programmes more effective Rayburn & Ramaprasad (2002). In order to achieve these goals, Rayburn & Ramaprasad (2002) proposed three strategies which are:

1. Guest Lecture Strategy for improving the efficiency of instruction
2. Automated correspondence course strategy for reaching new students and
3. Large Lecture Hall strategy for making programmes more effective.

Adrian (2002) has established a three step course development and implementation process. The first step is determining the course objectives and also the principal objectives concerning course design. The second step is designing the course structure which depends primarily upon an adequate incorporation of synchronous and asynchronous teaching. The last step is transferring the quality philosophy to the classroom.

One essential ingredient in course design is the provision of four kinds of support for learning: guidance, coaching/training, teaching and mentoring Diltz & Delzier (2000) cited in Kenning (2007). In terms of language learning, the place of the four forms of support will depend on the objectives of language learning and the relative importance of the individual aspects (grammar, fluency, accuracy, pronunciation ...) (ibid). Furthermore the designed course should mirror the pedagogical orientations and philosophies of the faculty.

E-learning as any educational activity attempts to facilitate teaching and learning along with promoting the aims of education through effective means that meets the e-learning students (Holmberg: 1995). Achieving this aim is a hard task because as Schuemer (1993:3-4) cited in (Holmberg: 1995):

*“many distance education courses are characterized by a high level of structuring and by the fact that the knowledge to be learned is presented as a ready-made system; for such a teaching method weingartz (1981) coined the term ‘systemoriented’ teaching method , which she contrasted with the term ‘problem-oriented’ teaching method”*

However, Schuemer was worried about the danger that these highly structured learning packages may affect the students’ independence, a key characteristic of distance education.

### **3.3.3.Key Elements of E-Learning Courses**

Some of the same reasons why distance education is considered so popular are also accredited with creating a better learning environment, better than even face-to-face, according to Draves (as cited by Holcomb, et al., 2004). Draves’ list includes:

1. Opportunity for the student to learn during his/her own individual “best” time.
2. Pace for learning is set by the student.
3. Learning occurs faster.
4. Personal interaction with both the teacher and other students can occur with greater frequency.
5. While working online, there are more topics and subjects to access readily.
6. Classroom participants may experience greater diversity by interacting with students that could be residents of anywhere in the world.
7. Online opportunities give the students access to the foremost authorities and experts.

8. Distance learning has been found to be less expensive and more accessible.
9. Online resources of information abound.
10. Online classes create virtual communities.

### **3.3.4. Roles of Teachers and Students in the E-Learning Environment:**

IT, IIT, and ICT integration in foreign language teaching is contributing to changing the whole structure of educational organizations. Within the emerging e-learning environments we notice a radical change of teachers and students roles along with a shift toward learner-centred paradigm.

#### **3.3.4.1. Teachers Roles:**

The role of teachers has changed and continues to change from being an instructor to becoming a constructor, facilitator, coach, and creator of learning environments.

According to Spodark(2001) cited in (Corbel,2007) technology integration into foreign language teaching led the teacher to play complex and various roles like: knowledge providers, guides, linguistic models, sirens, learning style coordinators, technology resource people, directors and creator of constructive learning environments. These metaphors are questioned by some theorists who argue that practice is more complex.

Davis & Caruso-shade (1994) cited in (ibid) proposed four essential roles for teachers:

**Instructor:** he guides and encourages students for using technology.

**Coach:** he facilitates the learning process.

**Model:** uses the computer technology as the learners are encouraged to.

**Critic:** e helps learners select the appropriate software.

Johnson (2001) cited in *ibid*, proposed three roles for teachers: learners, producers of knowledge and entrepreneur.

“online instructor must create situations where students are building knowledge and sharing it with experts and peers who in turn, offer authentic evaluation and timely feedback. Online instructor ,therefore, must fit into an education and learning paradigm that is increasingly learner-centric” (Jeong So & al 2009: 1346).

Berge(1990) cited in Corbel2007: 1117 proposed another set of roles for teachers working online: pedagogical(facilitator), social( creating an appropriate learning, managerial and technical.

Johnson(2001) cited in *ibid* suggested three roles for teachers which are: learners, producers of knowledge and entrepreneurs.

Here is e selection of some major roles of teachers:

**a. Teacher as Tutor:** Among the many roles supporting the learning process, the tutoring role is one widely recognised. The tutor’s role is not just the subject matter expert who facilitates learning activities, solves problems, and updates the contents. but it involves

also many other roles like:

**b. Facilitator:** the facilitator role indicated a shift from transmission approaches with the teacher as a knowledge authority to constructivist approaches with the teacher as learning facilitators. (Corbel 2007:1114). Johns & al(1995) describes the facilitator role as follow:

“As facilitators, teachers provide rich learning environments, experiences and activities; create opportunities for students to work collaboratively, to solve problems, do authentic tasks and share knowledge and responsibility”(jones & al 1995 cited in ibid)

**c.Modeller:** implies someone who stimulates the learner by creating materials and situations for active learning.

**d. Teacher as collaborator:** There are many ICT-based activities in which project-based learning is the pedagogical strategy. In such activities, teachers tend to participate as peers together with the students as stated by Jones and Valdez(1995) cited in ( corbel 2007): “teachers are often co-learners and co-investigators right alongside students”.

**e. Teacher as developer:** The teacher develops learning materials mainly in electronic format, or provides input to professional developers.

#### **3.3.4.2. Students Roles**

E-learning represents an educational experience that serves those students unable to attend traditional face to face mode of instructions. In e-learning environments, students are characterized by a certain maturity that demonstrates their independence (Holmberg 1995).

Students are responsible for managing their learning process (time and place to learn, number of courses undertaken, rest time, frequency of revision and practice sessions...) (ibid).

Students' independence can go further through setting the learning objectives and the courses content. Beside acquiring intensive computer literacy and skills in ICT use, students in such environment are expected to learn how to collaborate with other students and perform group works with the help of the teacher who has to create encouraging and motivating class environments(Huot& al: 2006).



If the roles of the teacher are moderator, tutor, etc., learners need to become self-reliant, active searchers for relevant information. The role of a self-reliant student is the corollary to a less directed role of the teacher. This raises the level of student's responsibility in learning and confidence in their abilities. The roles of students appear to depend on: a) the pedagogical approach used in classroom, b) the roles played by the teacher, and c) the classroom peers. (Pallof& Pratt: 2007).

In general, students tend to adopt a more active, motivated, deep and self-regulated learning role. Collaborative rather than individual learning tends to occur. Teachers tend to move from a traditional role toward one of a "learning facilitator". Nevertheless, these changes tend to be restricted to learning situations which employ ICT-based "open" applications, as interactive educational programs and use of Internet as information resource.

#### **4. Language Learning Strategies in n E-learning Environments**

The pioneering research into language learning strategies began in the 1970's with researchers such as Rubin (1975) and Stern (1975). Although nearly a quarter of a century has passed since then, and in spite of what Skehan(1989) called "explosion of activity" in language learning strategy research , the field of language learning strategy has been characterised by "no consensus" (O'Malley et al,1985: 22) and the concept of language learning strategies itself remains "fuzzy" (Ellis, 1994: 529). O'Malley *et al* (1985: 22) put it this way:

*"There is no consensus on what constitutes a learning strategy in second language learning or how these differ from other types of learner activities. Learning, teaching and communication strategies are often interlaced in discussions of language learning and are often applied to the same behaviour. Further, even within the group of activities most often referred to as learning strategies, there is considerable confusion about definitions of specific strategies and about the hierarchic relationship among strategies".*

Rubin (1975: 43) provided a very broad definition of learning strategies as "*the techniques or devices which a learner may use to acquire knowledge*".

##### **4.1. Definition of Language Learning Strategies**

A variety of lists and taxonomies of strategy use in language learning have been developed. Two outstanding works have emerged: the first refers to **O'Malley & Chamot's (1990)** division of strategies into:

- Metacognitive (self-management, self-monitoring , functional planning, self-evaluation, delayed production...),
- Cognitive (repetition, deduction, inference, translation...) and
- Socio-affective(cooperation and question for clarification) strategies

The second refers to **Oxford's (1990) Strategy Inventory for Language learning (SILL)** embracing:

- Direct strategies( memory, cognitive and compensation strategies) and
- Indirectstrategies (meatcognition, affective and social strategies).

Recent research and taxonomies have been emphasizing particular skills of language use, such as listening (Vandergrift), reading (Cascoigne) and speaking (Cohen)

O'Malley *et al* (1985: 22) proposed the following definition of language learning strategy:

*“There is no consensus on what constitutes a learning strategy in second language learning or how these differ from other types of learner activities. Learning, teaching and communication strategies are often interlaced in discussions of language learning and are often applied to the same behaviour. Further, even within the group of activities most often referred to as learning strategies, there is considerable confusion about definitions of specific strategies and about the hierarchic relationship among strategies”.*

Wenden and Rubin (1987) define learning strategies as *“...any sets of operations, steps, plans, routines, used by the learner to facilitate the obtaining, storage, retrieval, and use of information”.*

O'malley and Chamot (1990: 1) state that learning strategies are *“the special thoughts or behaviours that individuals use to help them comprehend, learn, or retain new information”*

Developing skills in three areas, such as metacognitive, cognitive, and socioaffective can help the language learner build up learner independence and autonomy whereby he can take control of his own learning.

In the field of foreign language learning the term strategy indicates that the language learner uses specific action or behaviour to improve the language performance (Oxford: 1990). The strategy is a moment-by-moment technique that the learner employs to solve problems caused by second language input or output. (Brown, 2000: 122).

The term strategy according to White (2008: 9)

*“Characterizes the relationship between intention and action, it is based on a view of learners as responsible agents who are aware of their needs, preferences, goals and responsibilities”*

## **4.2. Common Language Learning Strategies in E-learning Environment:**

While the language learning environment changed from the traditional classroom into an online environment, foreign language learners may change their learning strategies.

### **4.2.1. Metacognition and Language Learning:**

According to Chan (2006: 212), metacognition is *“the mechanism in one’s cognition that enables the conscious reflection and regulation of one’s cognitive process, including language comprehension and production, and language learning”*

Chan (2006) developed a study that investigated the relationship between learners’ metacognition and their interactions with a web-based CALL grammar exercise.

The study’s result demonstrated that some interactive aids provided vital support for learners’ strategy use. They have played a crucial role in CALL specific strategies like the instantaneous feedback with hints, (re) analysing, (re) applying rules for self-correction and the correction function as a quick monitoring tool in combination with guessing to complete the task (ibid).

Chapelle&Mizuro(1989 cited in Chan:2006) and White (1995) cited in Dreyer (2005) found that students in ICT based learning environments tend to use metacognitive strategies, especially self management, self monitoring and self evaluation strategies (Chan: 2006) more than classroom students do. These studies revealed the way metacognitive strategy use especially self-management strategies, allow learners to cope with such independent learning context.

#### 4.2.2. Affective and Social Variables in E-learning Environment.

Since e-learning environments are based on many learning theories that are influential in educational and social psychology such as constructivism, Jones & Issraff (2005) cited in (Hauck & Hampel 2008) stress the importance of affective and social factors when using technology for learning. Hurd (2005: 7) also emphasized the importance of the affective variables on learners' success in independent learning environments like the e-learning one:

*“For the distance language learner, it is perhaps affective variables- beliefs, motivations and anxiety- that are of greater relevance, because their effect on learning maybe intensified in an independent context and because of their capacity for modification and change”*

Hauk & Hample (2008) conducted a study on online language learners' strategies based on the taxonomy of affective and social strategies developed by Oxford (1990) supported by examples from Ellis's (1994) examples from conventional learning strategies that apply to face to face classroom learners in the traditional mode of instruction.

When analysing strategy use among students' online experience, they found out examples of most of the affective and social strategies proposed by Oxford. The most striking affective strategies (affective side: emotion, mood, attitude and values), were those used to struggle with 'language anxiety' that is responsible for deficits in listening comprehension and reduced word production and oral participation.

These results are somehow surprising mainly because almost all reseash *“show that shy students tend to participate more in computer-mediated interactions and the voice of the teacher becomes less overwhelming”* (Debski 2003: 132). Palloff & Prat: (2007: 233) supported the same idea, he asserts: *“the introverted student who may not feel comfortable speaking out or asking help in a face to face setting may flourish in the online setting”*

That is online environments provide learners with the opportunity to control, manipulate their learning interactions along with collaborative planning and negotiation of meaning (opcit).

Consequently, the strategic changing actions prove that affective and social variables in face to face classroom cannot be simply applied in online environments but rather require certain adjustments to fit this new context as Hauk & Hample(2008: 293):

*“online environments require different ways of making contact and maintaining contact, finding out about common interests and developing an identity as a group”*

#### **4.3.Examples of Some Online Strategies:**

The role of technology as a resource for instruction of foreign language learners is increasing as educators recognize its ability to create both independent and

collaborative learning environments in which students can acquire and practice a new language (Butler-Pascoe, 1997). Through the use of the Internet, word processors, multimedia, hypermedia, drill and practice programs, students can engage in individualized instruction designed to meet their specific needs and participate in cooperative projects that foster communication with peers in their classrooms and throughout the global community

Language is a living thing, so the best way to learn a language is in interactive, authentic environments. Computer technologies and the Internet are powerful tools for assisting these approaches to language teaching. the following points explain this assumption:

**\* Learning is an Active Process:** In today’s language classes, the teacher’s role should shift from “sage on the stage” to “guider on the side,” while students should actively search for and explore answers instead of receiving standard interpretations. Technology integration helps this shifting process for teachers and students.

\* **Problem Solving is the Focus:** The Internet, as well as some simulation software, provides a stage for the real world where students observe, think, question, organize and test their ideas. Unlike libraries, the Internet is a living medium that offers updated information — enriched by graphics and animations — to help students solve real-life problems.

\* **Learning is a Collaborative Process:** According to Anderson and Speck (2001), students prefer working with a partner over working alone on computer activities. Leu (1996) adds that “students often learn about complex multimedia environments by showing each other cool things.” Thus, through collaborative technology activities, students benefit from working with each other. Technology has also created a great way to communicate with people in different cultures. For instance, the Internet offers a worldwide learning environment that makes distance communication fast and affordable. By using the Internet, cross-cultural cooperative groups can be built up.

Nowadays teachers are frequently urged to use computer technology to teach foreign languages. Technology offers the possibility of developing the sociocultural competence of language learners more readily than the pages of a textbook or the four walls of a classroom. In effect, computers seem to realize the dream of every language teacher to bring the foreign language and culture as close and as authentically as possible to students in the classroom.



## **Conclusion**

Distance education and e-learning seem to promote a better and more varied learning and teaching process. It can increase the variety and diversity of learning opportunities. The amount and variety of types of language input accessible via e-learning encourage both learners and students to experiment more with language, explore various roles and acquire more skills.

**CHAPTER THREE/ QUESTIONNAIRES' DESCRIPTION AND  
FINDINGS' ANALYSIS**

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## **Introduction**

This study investigates teachers' use of interactive information educational technology and their broad attitudes and beliefs towards e-learning as a new fashion of delivering English language courses at Algerian universities. The research specifically looks at the nature of the relationship between teachers and educational technology and how teachers perceive e-learning application in language classroom. The general design of the study, its research tools and procedures, its data collection and results are presented in this chapter.

### **1. General Design of the Study**

The study addressed the following research questions:

1. What are English Language Teachers' attitudes and beliefs toward e-learning?
2. What are the different factors that shape and affect teachers' attitudes and beliefs?
3. How do these beliefs and attitudes affect teachers' intentions and reported practices implementing e-learning?
4. What are the different barriers that prevent teachers from integrating e-learning?

To answer these questions; one data collection instrument, a questionnaire, was employed in this study to gather data. Questionnaires, among other data collection instruments, are an easy and practical means to gather data from a large population like that of EFL teachers. The collected results will help us confirm or disconfirm the hypotheses stated in the introduction (P: 2).

## 1.1. General Description of the Questionnaire

The questionnaire for this study was composed of 4 sections. The first part aimed at gathering background information about the participants: their age, sex, teaching experience, educational level, the subject matter they taught/teach. The 2<sup>nd</sup> part revolves around teachers' hardware and software experience (computer experience). The 3<sup>rd</sup> Part tackles teachers' use of IIT in their TEFL. The 4<sup>th</sup> and last part identifies teachers' broad attitude toward the generalizing e-learning within university teaching programmes. The table below indicates all the mentioned parts.

**Table.2. Distribution of Questions in the Questionnaire:**

Section	section I	section II	Section III	Section IV
Question	Background	Teachers' computer	Teachers' IIT use	Teachers' Attitudes
Types	information	Experience	in their Teaching	toward e-learning
	implementation		Activities	
N°/Questions	06	09	10	05

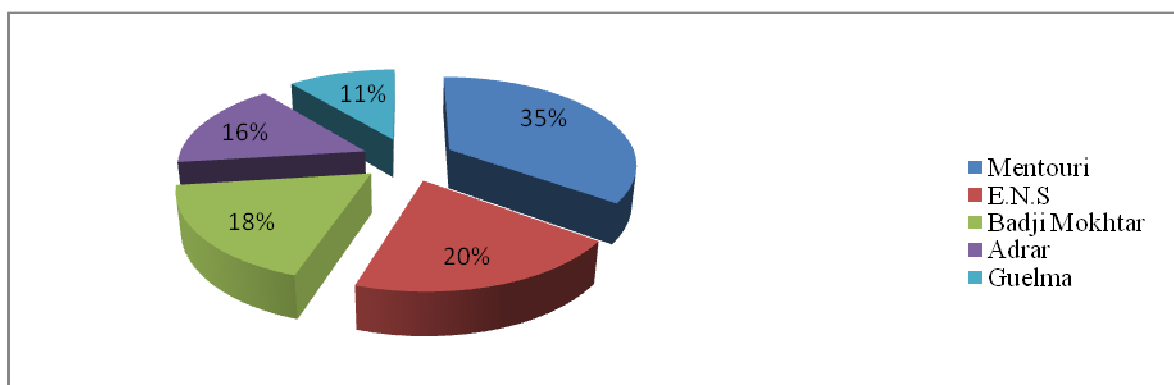
As it is indicated, each part of the questionnaire consists of a number of accurate and concise items; their analysis is in the following section.

## 1.2. Population Sampling and Questionnaire Distribution:

62 questionnaires were distributed to EFL teachers at the English Department in 5 Algerian universities (university of Constantine, ENS, Annaba, Guelma and Adrar). 45 were returned from the original 62, this yielded a total return of approximately 73%. The table below outlines the specific details on the number of questionnaires distributed and returned in each university with the percent that represents each one of the total sample of returned surveys.

**Table .3. Questionnaire Distribution and Collection per University**

Academic Institution	N°.Distributed	N°. Returned	% Returned	% of Total
Adrar University	12	07	58	16
Annaba University	15	08	53	18
E.N.S(Constantine)	10	09	90	20
ConstantineUniversity	20	16	80	35
Guelma University	05	05	100	11
TOTALS	62	45	73	100.00



**Figure .4. Questionnaire Distribution and Collection per University**

## 2.Data Collection:

The following section demonstrates and examines teachers responses to the 30 items of the questionnaire.

### 2.1. Participants' Characteristics

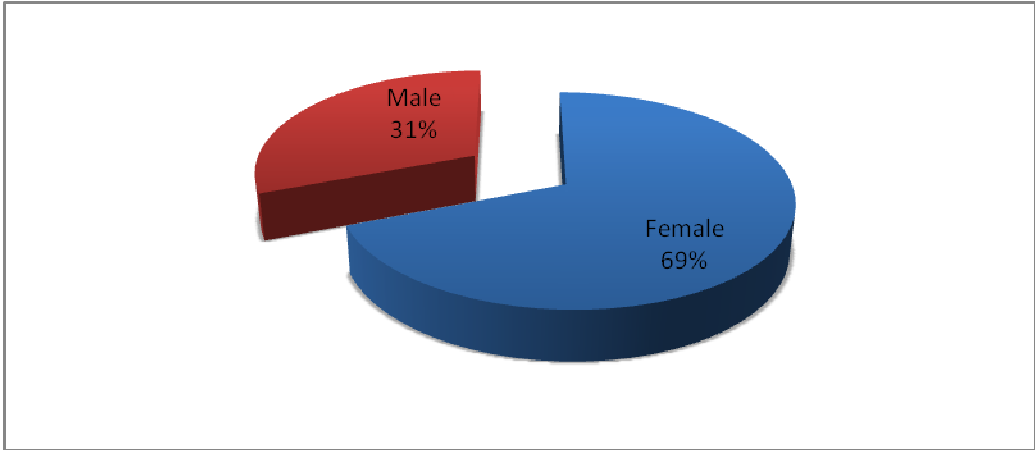
To gather clear information about the participants' characteristics, they were asked to respond to questions related to their educational level, age, experience, and sex. Table 4 recapitulates the detailed findings.

**Table 4.Descriptive statistics on Teachers' Degrees, Ages, Experience and Sex**

Educational level	N°	Ages	N°	Experience	N°	Sex	N°
Bachelor's level	05	23-29	11	<1 year	03	Female	31
Master/Magister level	35	30-35	20	1-5	14	Male	14
Doctoral level	05	40-49	10	6-10	12		
Professor level	00	>50	04	10-20	07		
				>20years	09		
<b>TOTALS</b>	<b>45</b>		<b>45</b>		<b>45</b>		<b>45</b>



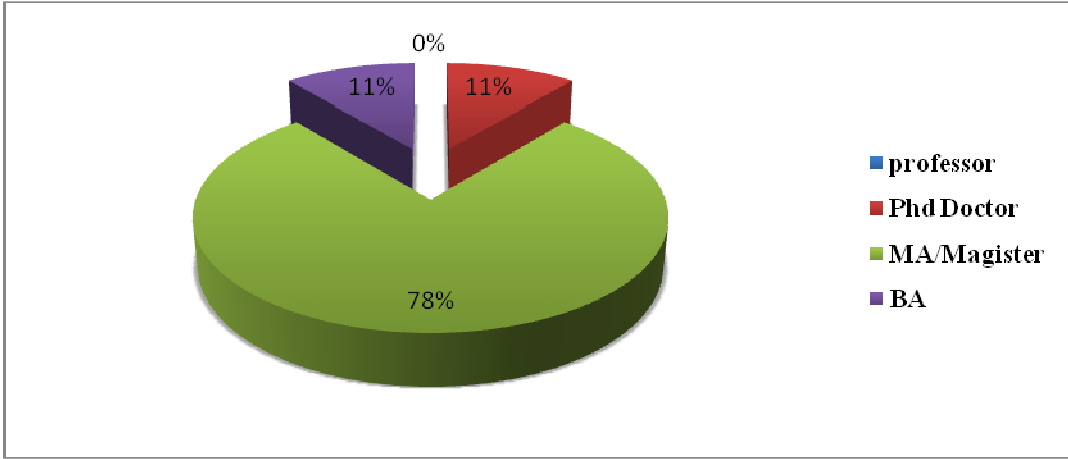
As for teachers' gender and as it is indicated in Table.4. the majority of informants are female (69%) and only 31% are males.



**Figure.5.Distribution of Teachers' Gender**

**2.1.2. Teachers Educational Level:**

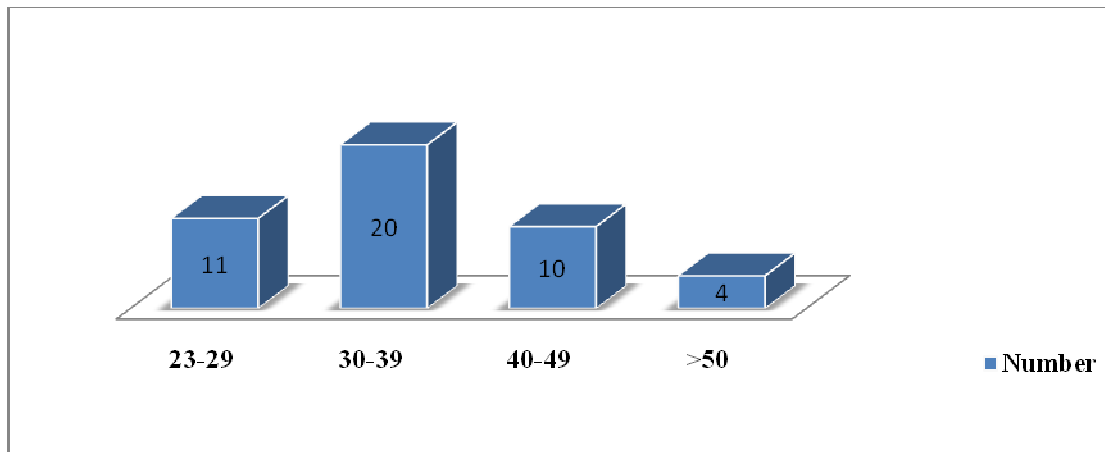
The majority of teachers have Magister degree (78%), the same percentages of teachers have PhD Degree and BA (11%), and no one from the respondents is professor.



**Figure.6. Distribution of Teachers' Educational Level.**

### 2.1.3. Teachers Age:

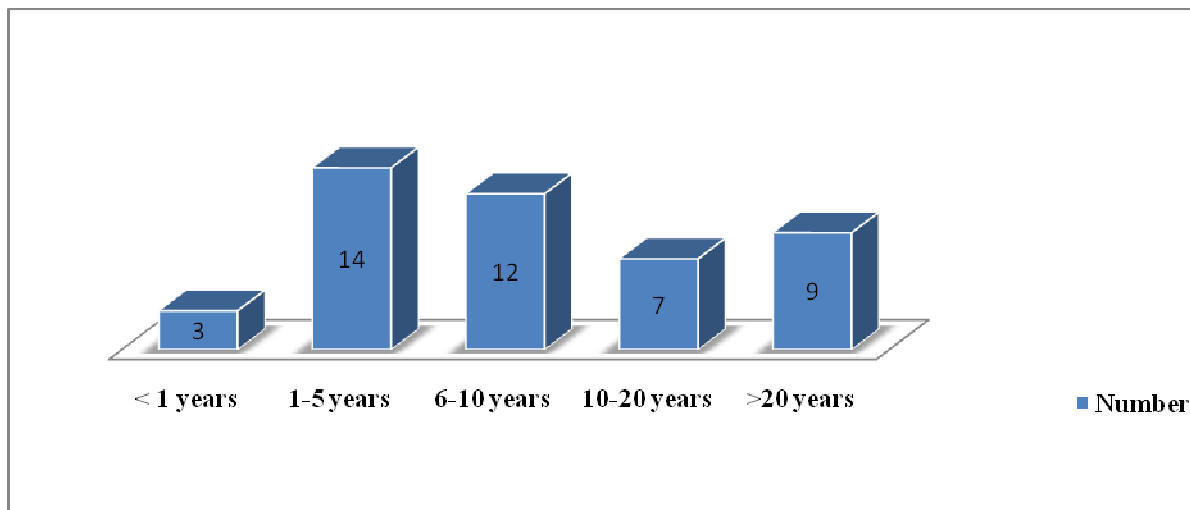
Among the participants 11 teachers have their age between 23-29 years old, 20 teachers which represent the majority range their age between 30-39 years old, 10 respondents are between 40-49 years old and only 4 are older than 50 years old. The figure below demonstrates the detailed results.



**Figure.7.Teachers' Age**

### 2.1.4. Teachers' Experience

The majority of informants' experience ranges between 1-5 years (14 teachers) and 6-10 years (12teachers), then comes a category with more than 20 teaching years (09). Only 3 informants have less than one year experience and 7 have an experience ranging between 10-20years. The figure below shows the findings



**Figure.8.Teaching Years**

## **2.2. Hardware & Software Teachers' Experience**

The second part of the questionnaire deals with the teachers' experience with computer software and hardware. In this part, teachers were asked to provide exact information about their knowledge of computer use and its integration into language teaching, the type of applications used, the frequency of computer use, the availability of computer and internet access to teachers.

**Q7/ Do you have a computer at home?**

**Q8/ Do you have internet access at home?**

From 45 teachers 3 don't have computers at home, 23 have computer with internet access at home and 19 have computers at home without internet access.

**Table.5.Availability of Computer at home**

Computer at home	Nbr	%
YES	<b>42</b>	<b>93%</b>
NO	<b>3</b>	<b>7%</b>

**Table.6.Internet Access at Home**

Internet at home	Nbr	%
YES	<b>23</b>	<b>51%</b>
NO	<b>22</b>	<b>49%</b>

**Q9/ How many hours' weeks do you spend using a computer?**

Reported weekly hours and frequency of computer use ranged among the 43 respondents as outlined in table 2.1 and graph with the majority of participants using computers more than 10 hours per week (19 or 43%), and on a daily basis (28 or 62%).

**Table .7. Reported Weekly Hours of Computer Use among EFL Teachers**

Hours/week of computer use	N°. responses	Percent%
None	<b>2</b>	<b>4</b>
<b>1</b>	<b>2</b>	<b>4</b>
<b>1-3</b>	<b>9</b>	<b>20</b>
<b>4-7</b>	<b>7</b>	<b>16</b>
<b>7-10</b>	<b>6</b>	<b>13</b>
<b>10</b>	<b>19</b>	<b>43</b>
<b>Totals</b>	<b>45</b>	<b>100.0</b>

**Q10/ How would you rate your experience with computers?**

the teachers' responses when asked to rate their experience with computers showed that almost 91% of them use common computer applications like word processing and spreadsheet, 2% never used computers but would like to learn and 22% use computers for instruction. The table below indicates the detailed statistics.

**Table.8.Teachers' Computer Experience**

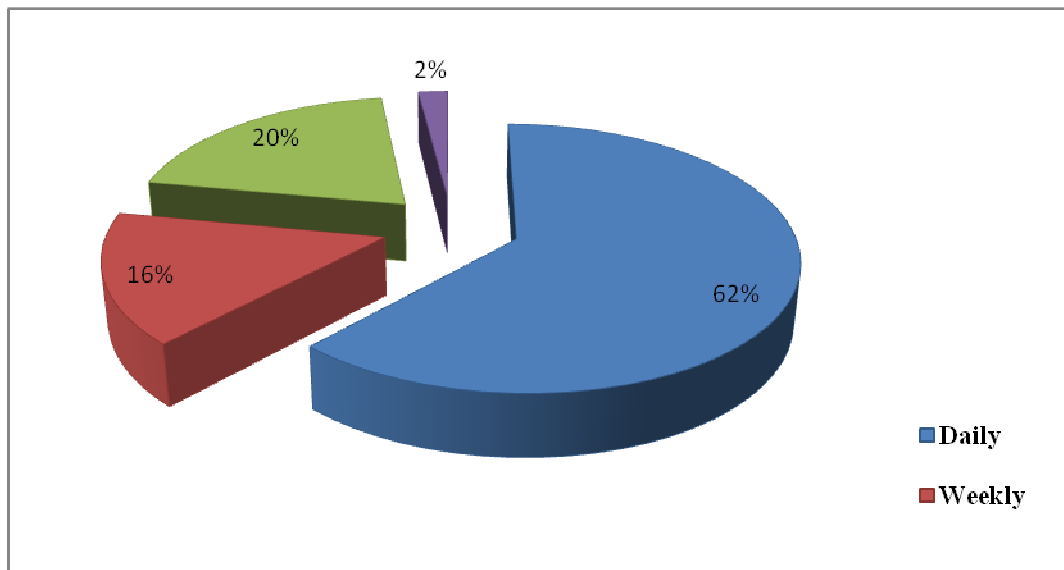
Computer experience	N°	%
I have never used a computer and I don't plan to	0	0%
I have never used a computer but I would like to learn	1	2%
I use applications like word processing, spreadsheets,...etc	41	91%
I use computers for instruction in the classroom	10	22%

*Note: in this item of the questionnaire, teachers were asked to choose the answers that apply. As a result, the responses will not represent 100% of the 10 reported IIT users.*

**Q11/How often do you use it? (Computer applications)**

As it is indicated in the graph below, 62% of teachers use computers on a daily basis,

20% use it occasionally and 16% use it weekly.



**Figure.9. Frequency of Computer Use among Participants**

**Q12/ what type of computer application(s) do you use on a regular basis?**

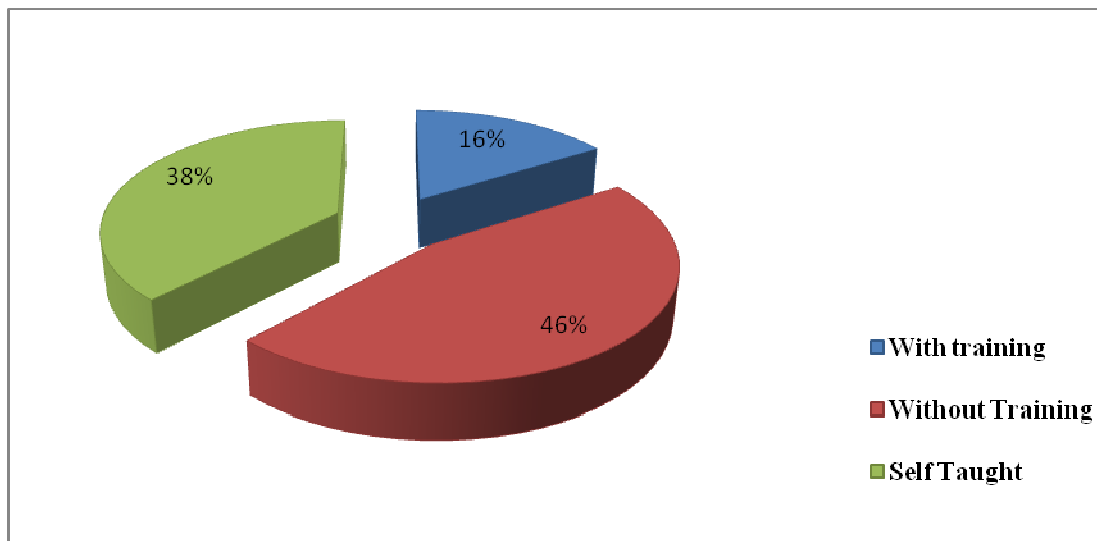
When asked about computer application used on a regular basis, a large majority of the 45 teachers reported using word processing (78%), internet (69%) and e-mail (60%) regularly. Only 4% of the respondents reported not using computer on a regular basis (60%) regularly.

**Table.9. Computer Application used by Teachers**

<b>Application used</b>	<b>Nbr of users</b>	<b>%</b>
<b>E-MAIL</b>	27	60
<b>WORD PROCESSING</b>	35	78
<b>INTERNET</b>	31	69
<b>OTHER</b>	/	/
<b>I DON'T USE</b>	2	4

**Q13/ Have you received training on how to integrate technology tools into your teaching?**

Few participants reported having received training in technology or computer mediated language learning and teaching. About half of the participants 21 representing (46%) indicated having received no training on how to integrate technology in EFL instruction. 17/38% of the participants indicated engaging in a kind of self taught or self training, and only 7 (16%) of the total reported having received some training on technology integration in language learning as it is outlined in the figure below



**Figure.10. Percentage of Teachers with Training**

**Q 14/If yes, what type of training have you received?**

**Q 15/Where did you receive your training?**

As per the training received, the teachers explain that the training programme took place in specialized schools and dealt with computer application use and computer integration into the teaching activity.

### **2.3.Interactive Information Technology Use in TEFL and Research**

The third part of the questionnaire deals with interactive information technology use in TEFL and identifies the different IIT applications used by teachers either in their own research scope or their teaching practices, the conditions of IIT use and their general attitude toward IIT integration into the foreign language classroom.

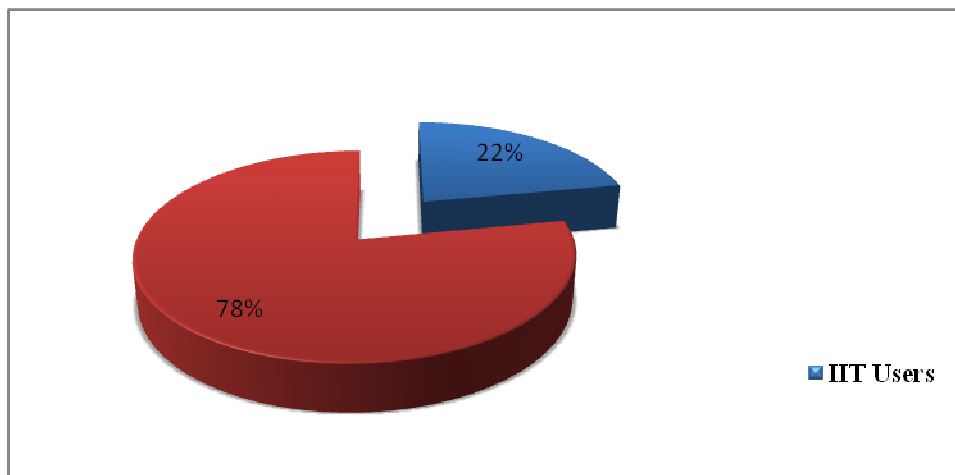
**Q16/ Have you ever used IIT in your teaching?**

From the total 45, only 10 (22%) participants use IIT in their teaching, whereas 35(78%) do not, as it is indicated in the table and graph below:

**Table.10. Distribution of IIT Users and Non-Users**

IIT USERS/NON USERS	N°	%
Users	10	22
Non Users	35	78
TOTALS	45	100

*User is defined as a respondent answering positively to item 16 in the questionnaire: “have you ever used interactive information technology in your EFL teaching?”*



**Figure.11. Distribution of IIT Users and Non Users**

**Q17/ If yes, which IIT have you used/do you use in your EFL teaching?**

When asked about the different types of IIT used, 100% of the respondents reported using CD Rom, 60% use WWW (World Wide Web), 50% use e-mail and internet, 10% use video/computer conferencing, and no one (0%) use audio-graphic conferencing. The table describe the results.



**Table.11. The different IIT applications being used**

<b>IIT application</b>	<b>N°</b>	<b>%</b>
<b>E-Mail</b>	<b>5</b>	<b>50</b>
<b>WWW</b>	<b>6</b>	<b>60</b>
<b>CD Rom</b>	<b>10</b>	<b>100</b>
<b>Internet</b>	<b>5</b>	<b>50</b>
<b>Computer Conferencing</b>	<b>1</b>	<b>10</b>
<b>Video Conferencing</b>	<b>1</b>	<b>10</b>
<b>Audio graphic conferencing</b>	<b>0</b>	<b>0</b>

*Note: in this item of the questionnaire, teachers were asked to choose the answers that apply.*

*As a result, the responses will not represent 100% of the 10 reported IIT users.*

**Q18/Where have you used/ do you use IIT with your EFL students?**

**Q19/ Where would you prefer to use IIT with your EFL students?**

Of the 10(22%) participants, only 4(40%) reported having used IIT in a solely classroom setting, the same number reported using IIT in a laboratory setting, While only 2(20%) indicated an experience in both classroom and laboratory. When indicating a preferred location to use IIT, 2(20%) would prefer the laboratory setting, another 20% would prefer the classroom setting, leaving the majority 6 (60%) indicating a preferred experience in both classroom and laboratory. As can be seen, while the majority of teachers have only used IIT exclusively in a laboratory or a classroom, a substantial proportion of educators desire to use IIT in a more integrated classroom and laboratory context. The results are shown in the table below.

**Table.12. location of computer/IIT access**

Location of computer access	N° users	Preferred location	N° users
<b>COMPUTER LAB</b>	5	computer laboratory	2
<b>CLASS</b>	4	class	2
<b>BOTH</b>	2	<b>both</b>	6

**Q20/Do you think using IIT helped your students?**

Participants' responses explaining the reasons and the purposes behind integrating such technology, agree on the fact that IIT use enhances and supports language learning thanks to the wide range of resources and data available. The large majority of teachers perceived IIT as an instructional tool assisting in the delivery of the foreign language programs. They find IIT use more reliable, easier to manage and saves both their time and energy. The total of the 10 participants (100%) felt IIT integration helped their students in rising their interest and motivation along with uplifting their ability to assimilate the foreign language, since they take the information in its best complete form with immediate feedback. Besides, students are more exposed to authentic materials especially in modules like oral expression and phonetics. Reported explanations included also targeting individual learning styles, and making the class fun and relevant to generations of learners who will require computer and technology skills in their careers. The teachers' explanations then can be grouped in four categories. These categories include the perception that IIT was a pedagogical tool, a research tool, a communication tool, or that it helped achieve affective objectives (such as increasing students' motivation).

### **Q21/If you have not used IIT in your EFL teaching, why haven't you used them?**

As far as the non-users of information interactive technology (IIT), that represent 78% of the total participants, are concerned, the main explanation for not having used IIT was lack of IIT access. This was followed by a lack of knowledge of how to integrate IIT in EFL teaching and a lack of time. Few other participants offered other reasons revolving around the belief to teach perfectly without introducing such technology in the teaching process. The table 3.7 indicates the obtained results.

**Table.13. Reasons for not having used IIT in TEFL**

REASON	N°	%
No access	18	52
Not an effective teaching tool	3	9
Not comfortable using IIT	6	17
Need to see the results first	3	9
Not enough time	7	20
No knowledge of integration	7	20

*Note: in this question, participants were encouraged to check off all reasons that apply. As a result, the responses will not represent 100% of the 35 reported non-IIT users.*

### **Q22/ What would make you more likely to use IIT in your EFL teaching?**

When asked what would encourage the use of IIT among these non-users, 24(69%) mentioned increased accessibility to IIT, 18 (51%) mentioned increased training, along with 30(86%) mentioned increased technological support, and 17(49%) mentioned increased time.

**Q23/ If the above conditions were satisfied, would you use IIT?**

**Q24/ Whatever your answer, please explain why?**

These two questions can reveal to us the non-users' intentions to integrate IIT.

If these reported constraints preventing the use of IIT mediated language learning among these non-users were removed or at least satisfied, a total of 33 (94%) respondents stated that they would use IIT because they believe learning and technology should go hand in hand, and it's high time to start introducing such technology in the EFL programs. A large majority of respondents recognized the assistance as well as the support that can bring such technology in achieving the teaching objectives, and felt their students should know how to use this technology. Almost all of them strongly assert that IIT integration will improve the teaching quality and create a flexible and enjoyable learning environment for students. Only 2(6%) said they would not use IIT even if all the conditions were satisfied simply because they don't believe that IIT could teach their students better than they do.

**Table.14. General Attitude toward IIT Use.**

In case constraints removed would you use IIT?	Nbr	%
YES	43	96
NO	2	4

**Q25/ If all the conditions in question 22 above were satisfied, how likely would**

**you be to use the following IIT applications in the next years?**

Supposing that all the constraints preventing IIT use were removed, the overwhelming majority of non-users 30(86%) stated they would very likely use internet, 23(67%) of the respondents stated they would very likely use WWW, 15(43%) would very likely use e-mail, while 8(23%) indicated the likelihood of using audio-graphic conferencing. The table 3.8 shows the detailed results

**Table.15. Non-users Intentions to use IIT Application**

<b>IIT application</b>	<b>very likely</b>	<b>likely</b>	<b>not likely</b>	<b>not sure</b>
<b>Email</b>	<b>15</b>	<b>11</b>	<b>3</b>	<b>14</b>
<b>www(world wide web)</b>	<b>23</b>	<b>7</b>	<b>1</b>	<b>14</b>
<b>Internet</b>	<b>30</b>	<b>4</b>	<b>1</b>	<b>10</b>
<b>Computer conferencing</b>	<b>16</b>	<b>13</b>	<b>1</b>	<b>15</b>
<b>Audio conferencing</b>	<b>14</b>	<b>15</b>	<b>4</b>	<b>12</b>
<b>Video conferencing</b>	<b>17</b>	<b>13</b>	<b>3</b>	<b>12</b>
<b>Audio-graphic conferencing</b>	<b>8</b>	<b>12</b>	<b>3</b>	<b>29</b>

**Q26/Do you use computer and information technology applications in your own research?**

The third and last part of the questionnaire deals with the teachers' belief and attitude toward e-learning. When asked about using computer and IIT applications in their own research, 43(96%) of the participants answered positively whereas only 2(4%) answered negatively. Accessibility, effectiveness, practicality, facility and rapidity summarize the majority of explanations provided by teachers using IIT in their own research. Almost all of them agree that the availability of resources and up to date information accessible through a simple click, and the lack of books and teaching materials in university libraries explain the reason why almost all teachers cannot embark into any research whether for preparing lessons, gathering information or doing research papers without exploiting such technology.

**Table .16. Reported Teachers' Answers for Using IIT in Their Own Research**

Yes/No	N°	%
Use IIT in research	<b>43</b>	<b>96</b>
Don't use IIT in research	<b>2</b>	<b>4</b>
Totals	<b>45</b>	<b>100</b>

**Q27/Within possible/positive conditions are you willing to generalise e-learning of your subject?**

Among the 43(96%) of the participants indicating they use IIT in their own research, 8(17%), reported that even within possible conditions, they would not generalise e-learning to students. For justifying their choice, the majority claim that both students and teachers are not yet prepared and need more training. Fewer explain that e-learning implementation could not fit within the Algerian university systems and prefer keeping the familiar teaching

methods with the human touch. 35(81%) of the respondents indicated their intention to generalise e-learning to students if all the conditions are satisfied. They believe that e-learning implementation at the university level is a must, not only because of keeping pace with the increasing universal technological development, but because e-learning suits the continuous assessment advocated by the LMD system and seems to represent an option for the crowded classes issue.

**Table.17. Generalising E-learning to students**

YES/NO	N°	%
YES	35	81
NO	10	19
TOTALS	45	100

#### **2.4.Attitudes towards IIT and E-learning**

##### **Q28/ What kind of feeling or attitude does the use of computer and technology applications provide for you?**

The majority of participants share feeling of confidence 28(62%), enjoyment 27(60%) and pleasure 26 (58%) when using interactive information technology applications, only 2(4%) respondents feels embarrassed when using computer applications. The table describes the exact results.

**Table.18. Participants' Feeling when using IIT**

Feeling	N°	%
Confidence	28	62
Enjoyment	27	60
Pleasure	26	58
Frustration/fear	0	0
Embarrassment	2	4
Hindrance	0	0

*Note: in this question, participants were encouraged to check off all that apply. As a result, the responses will not represent 100% of the total respondents.*

**Q29/ the challenge of implementing e-learning in TEFL is rather exciting or frustrating for you?**

After knowing the feeling that IIT use provides for teachers, they were asked to indicate the way they consider the challenge of e- learning implementation. 39(87%) of the participants find it exciting, 4(9%) find it frustrating, and only 2(4%) find it neither exciting nor frustrating. The majority of the 39(87%) respondents feeling excited about e-learning implementation explain that e-learning would improve the teaching/learning processes. Since e-learning would engage both students and learners in a variety of activities and tasks, it would create a richer and more vivid learning environment that would lead to a better assimilation of the subject under study. Lack of training and ignorance about IIT use represent the main reason why 9% of the respondents feel frustrated about e-learning implementation. The table 3.12 indicates the final results.



**Table.19. Participants' Feeling toward the Challenge of E-learning implementation**

Feeling	N°	%
Exciting	39	87
Frustrating	4	9
Neither	2	4
Totals	45	100

**Q30/ Do you think, that in the future, the department/ university must rely on e-learning?**

In terms of attitude toward the future university reliance on e-learning, 37(82%) of the respondents responded positively, while 8(18%) responded negatively. In their explanation, those who answered positively argue that the application of the LMD system requires some self learning from students and e-learning would be of a great support to both teachers and students. The majority seem welcoming the implementation of such technology, with the necessity of providing the appropriate training for students and teachers, in order to move a step forward in the universal academic realm. However, the majority of the 18% of the participants who responded negatively explained that e-learning implementation is not a must and that e- learning will only enslave teachers and restrict their role on the long term. Some participants think that e-learning implementation at the Algerian context will just lead to a state of confusion and anarchy on the levels of administration, instructors and students.

**Tabl.20.Respondents' Attitude toward Future E-learning Implementation**

Attitude	N°	%
Positive	37	82
Negative	8	18
Totals	45	100

If we compare these results with the results in the previous table we can notice that 2(5%) of the respondents who find e-learning implementation as exciting expressed a certain reluctance toward future university reliance on e-learning. One of the participants believes that e-learning will enslave teachers and restrict their role on the long term. The other insists on providing the necessary training for instructors and students.

### **3. Analysis and Discussion of Questionnaires' Findings**

This section will discuss and provide an interpretation of the findings from the questionnaire data in an attempt to offer answers to the questions guiding this study and check the validity of the hypotheses of this research, participants were grouped according to their weekly hours' use of IIT, age, experience and gender. Then correlations of these factors with IIT use and Attitude toward e-learning were made.

The analysis of these correlations prove proves that the most noticeable factor impacting teachers' use of IIT and attitude to e-learning implementation appeared to be weekly computer use, showing a positive relationship between weekly computer use and positive attitude towards e-learning. Teaching experience appeared also to influence IIT use in EFL teaching. There were no significant statistical differences among teachers' attitude of participants grouped by age, gender, or university affiliation.

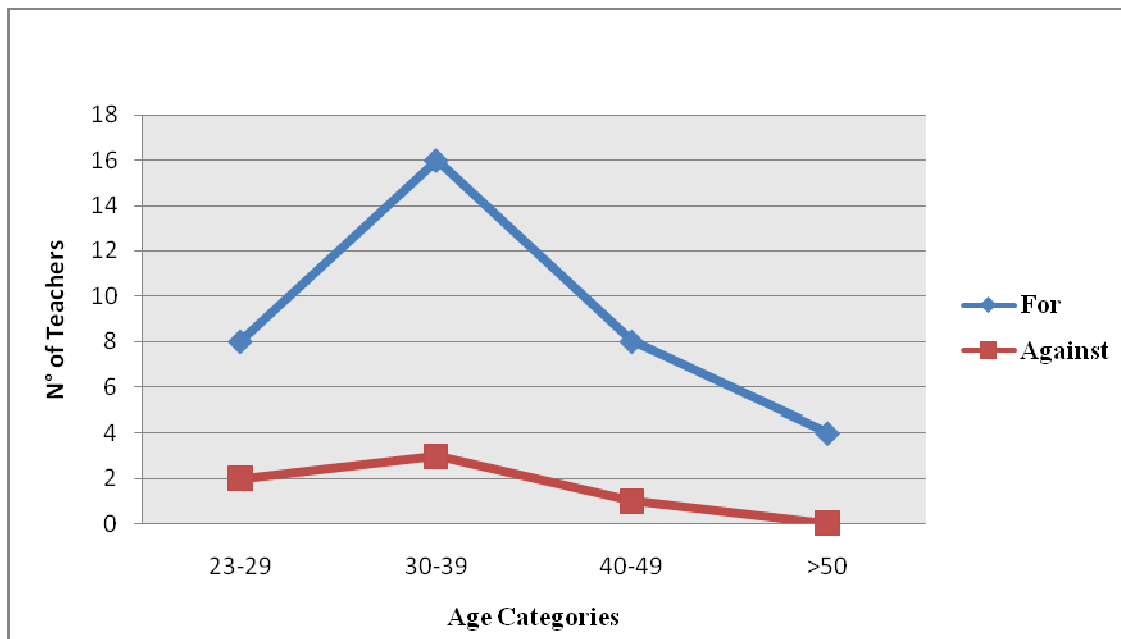
The graphics supplied in the subsections below indicate the relationship between the different factors.

#### **3.1.The Influence of Teachers' Age on IIT Use and E-learning Implementation**

Teachers' age represents another factor that appeared to influence teachers' beliefs and attitudes in terms of the educational effectiveness of IIT and future implementation of e-learning. Given the questionnaire's results, the number of participants using IIT in their teaching seems to increase through the increasing teachers' age until the age of 49 when it

starts to decrease reaching its lowest number at the age of 50.

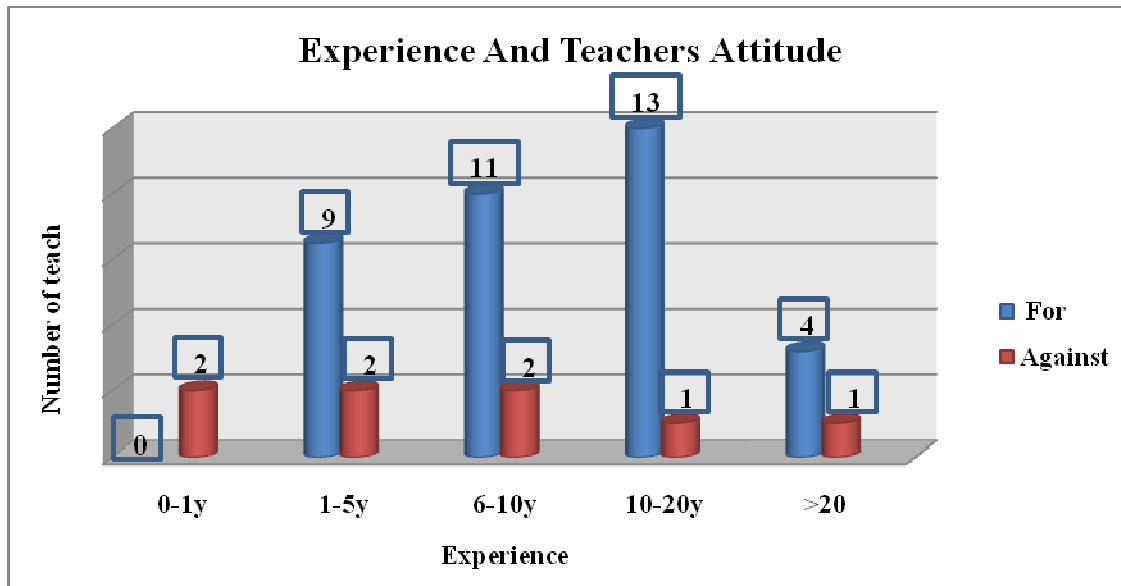
As far as teachers' attitudes toward future e-learning implementation, the participants' responses show no significant difference between teachers' age and their reported attitudes. Almost all teachers from the different age categories expressed positive attitudes toward e-learning implementation.



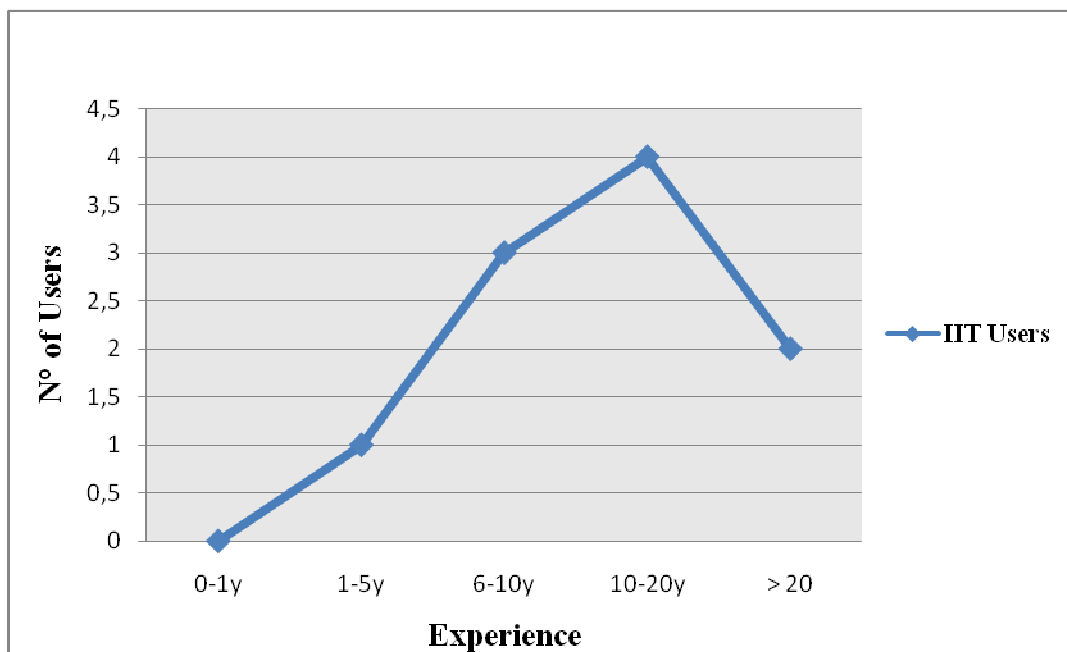
**Figure.12. Correlation between Age and Attitude toward E-learning**

### **3.2. Teachers' Experience:**

Given the participants responses, teachers' experience seems to have an important influence on both IIT use and attitude toward e-learning. IIT use and positive attitudes toward e-learning increase as the teaching years rise to reach the top between 10-20 years, and then they decline with more than 20 years of teaching experience



**Figure.13. Teachers' Experience and Their Attitude toward E-learning**



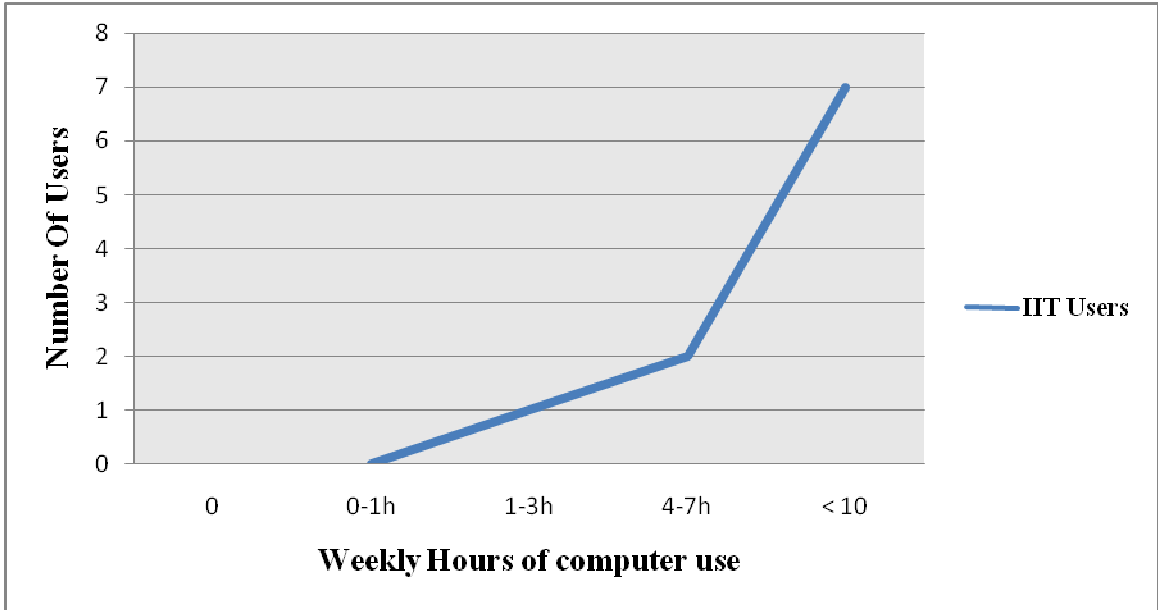
**Figure.14. Relationship between Teaching Experience and IIT Use**

The questionnaire's findings demonstrate that teaching experience has a relatively considerable relationship to IIT use by teachers and their attitude toward e-learning. Those teachers in their first few years of teaching are somewhat reluctant to use IIT comparing to other experienced teachers; even though they are younger and possibly more computer-savvy in general.

Teachers with less than 6 years of teaching experience are slightly less likely to integrate technology tools in their teaching and less enthusiastic toward implementing e-learning in university teaching programmes.

**3.3.The Influence of weekly Hours of computer use and IIT use**

Given the responses, IIT integration in the teaching process raise as the weekly computer hours use increase. Teachers who use computers more than 10 hours per week are those who more integrate IIT in their teaching than the rest of the participants

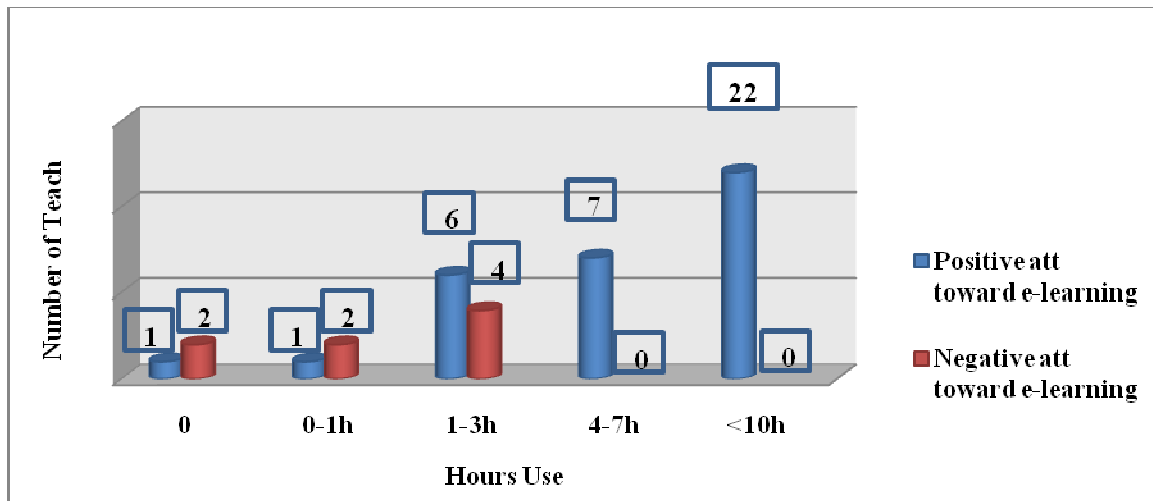


**Figure.15. Relationship between Weekly hours of Computer Use and IIT Use in TEFL**

**3.4.The influence of weekly Hours of Computer Use and Teachers attitude toward e-learning**

Teachers positive attitude seem to increase as the weekly hours of computer use rise.

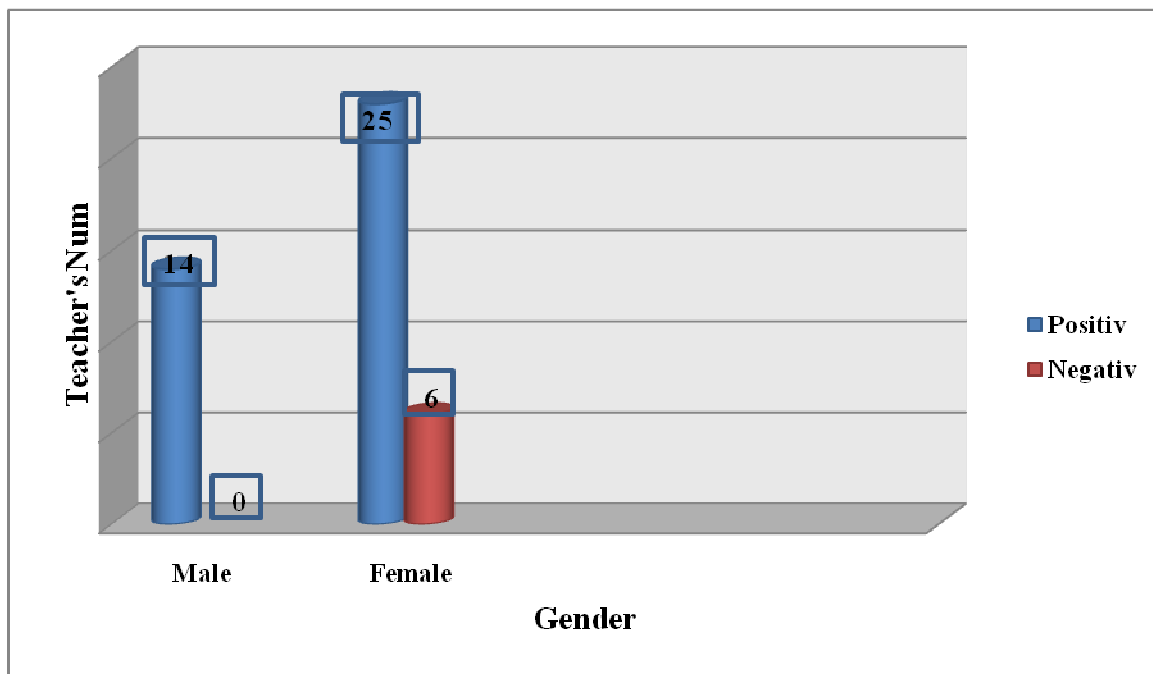
The responses demonstrate that teachers who use computers more than 10hours per week have more positive attitude toward implementing e-learning , with an absence of negative attitude among teachers using computers between 4-7 hours and more than 10hours.



**Figure.16.Relationship between Computer Use and Attitude toward E-learning**

### 3.5.The Influence of Teachers' Gender on their Attitude toward E-learning

Given the responses, teachers' gender doesn't affect their attitude toward e-learning implementation. Almost both of them share positive attitude with slight negative reactions among female participants.



**Figure.17.Relationship between Gender and Attitude to E-learning**

#### **4. EFL Teachers Beliefs and Attitudes toward E-learning**

Given the responses of this questionnaire, it appears evident that EFL instructors sampled in this study demonstrated generally favourable attitudes towards IIT mediated language teaching/ Learning in particular and E-learning in general; and remarkably positive beliefs about its potential effectiveness in EFL instruction.

96% of the respondents use IIT in their own research, and 81% reported that they would generalise it to their EFL students asserting all the advantages that it will bring out. While 4% of the participants refuse to generalise it to their students, because they prefer keeping the familiar methods, and do not ready for such innovation.

The majority (60%) of instructors surveyed reported enjoying computers and technology applications, and (62%) felt confident using them. Only few (4%) felt embarrassed working with IIT. In addition, (87%) felt excited about the challenge of implementing e-learning in TEFL, while (82%) reported positively toward relying on e-learning in TEFL.

The majority of participants surveyed (78%) reported not having integrated IIT in their EFL teaching mainly because of the lack of accessibility, training and technological support; however, 94% of the teachers showed strong intentions to integrate IIT in their teaching if these constraints were removed.

These favourable results reflect earlier research findings showing that second/Foreign language teachers generally have a favourable attitude towards computer technology-mediated language learning (Harvey, 1987; Hopwood, 1989; Sofranova, 1993; Leh, 1995; Diamond, 1997; Moore et al., 1998; Levy, 1999).

furthermore, the results prove that teachers who have a certain knowledge about computer use and IIT applications would embrace e-learning implementation if all the conditions were satisfied.

No more than (4%) of the instructors responded negatively to the questionnaire's items. An analysis of their responses demonstrated unfavourable attitudes toward e-learning, mainly because they ignore computer use and are unfamiliar with technology applications. These instructors reported feeling embarrassed about using computer and technology applications, and revealed negative reactions toward IIT integration in TEFL and e-learning implementation as well. They don't use IIT in their own research and are not willing to generalise it to their students even within possible conditions. These negative reactions prove that the more teachers ignore a particular innovation, the more they tend to reject it strongly.



#### **4.1. Teachers' Experience and their Beliefs and Attitudes**

The most significant difference in this area occurred between 10 and 20 years of teaching experience, who had more integrated IIT in their teaching and expressed more positive attitude toward future university reliance on e-learning, and those with 20 years of experience.

I suppose that the difference in beliefs and attitudes between these two groups stems from the fact that teachers with a minimum of ten years of experience have developed substantial confidence and security with their teaching practices and are still motivated enough to explore educational innovations using technology. The confidence and security provided through this degree of teaching experience combined with the still motivation to expand teaching approaches likely empowers teachers with this level of experience to examine educational technological approaches.

On the other hand, teachers having taught for twenty years may be considerably committed to their teaching approaches and not necessarily interested in improving or modifying their teaching practices and thereby less motivated to experiment with such technological innovation.

These teachers have considerable investment in their teaching approaches and modifying these practices is likely seen as a considerable threat. Consequently, these most experienced teachers have less intention to expose themselves to educational technology and are thereby less aware of any educational potential these tools may have.

## **4.2.Computer Use and Teachers Attitudes and Beliefs**

The most significant identified difference in participant attitudes and beliefs occurred among participants grouped by weekly computer use. Results indicated a positive relationship between weekly computer use and IIT/ E-learning attitudes among participants. Increasing weekly computer use among participants resulted in increasing positive perceptions of the educational efficiency that e-learning implementation can achieve in foreign language teaching.

It's not surprising that those participants using computers on a more regular basis have more computer literacy and hence show more positive attitudes and strong beliefs toward their utility in foreign language teaching. In a discussion of the effects of computer instruction on attitudes toward computers, Green et al.(2000) cited numerous studies indicating a correlation between more positive attitudes and increased computer experience. Cited In Green et al. (2000), a study by Gressard and Loyd(1985 cited in Green et al.2000) found that elementary school teachers in a staff development computer training course were significantly less anxious and more confident about computer use after training than before. Finnegan and Ivanoff (1991) (as cited in Green et al., 2000) found significantly more positive attitudes towards computers for a class of social work graduate students following a brief computer course. In addition, McCain(1999) found increased experience using computers lead to increasingly positive attitudes toward computers in education.

An examination of faculty use and non-use of e-mail and the resulting effects of this usage on attitudes toward computers indicated that more positive expectations about the utility of technology resulted from increased use of this technology (Mitra et al., 1999).

In their study of 388 public elementary and high school foreign language teachers' use of technology in teaching foreign language culture, Moore, Morales and Carel (1998) indicated that teachers of Japanese, having used technology in their own pre-service training had developed a more positive awareness of the potential of this technology and therefore used it in their teaching more frequently.

The ironic revelations of these findings is that research suggests that negative attitudes and unfavourable perceptions of computers adversely affect computer literacy (Chisholm, Irwin,& Carey, 2000), and as has been discussed, computer experience resulting in computer literacy increase positive attitudes towards computers. While positive attitudes towards computers increase the likelihood of achievement, negative attitudes decrease the attainment of competence and presumably favourable attitudes towards educational computer use. As a result, this vicious circle of no experience, no use is a crucial area to address in educational training to ensure a more effective use of computer-mediated language learning applications.

#### **4.3.The likelihood of IIT Use and Teachers' Attitudes and Beliefs**

Another statistically area revealed among these participants grouping was the difference between perceptions of the utility of IIT in foreign language teaching among non-users reporting a likelihood of using computers and technology applications in their future teaching practices( when the conditions will be possible) and non-users indicating no intention of using IIT in the future. Given the substantial difference in the sizes of these two groups any conclusion from these findings would be difficult to support. Nevertheless, given the substantially greater number of non-users reporting an interest in exploring IIT mediated language teaching and e-learning approaches in the future, it's clear that even those foreign language teachers inexperienced in computer use possess a generally positive perception of the usefulness of IIT as educational tools.

It's also clearly understandable that those reporting an intention to use IIT in the future likely have an increased perception of the effectiveness of these technological tools. As reported in the study examining faculty use and non-use of e-mail, expectations of technology are related to the actual use of technology (Mitra, et al., 1999).

What can be also drawn from the findings is the difference between teachers' responses concerning the use of IIT for their own research, and the intention to generalise it in his foreign language teaching. Among the 43 teachers reporting using IIT in their own research, 8 refused to generalise it with their students because they feel they can't embark on such innovation without a minimum literacy and training on that novelty. Those teachers are not against e-learning implementation but because of a certain ignorance of what e-learning represents and what technological applications it includes, moreover, most of them are unaware of the improvement that e-learning implementation would provide foreign language teaching. Consequently, they tend to react negatively toward it.

#### **4.4.Factors not Impacting on Teachers Attitudes and Beliefs**

There were no statistically significant differences between the belief systems of the minority of male instructors and the majority of female instructors towards e-learning or among instructors from separate universities. This lack of difference in gender-based samples was somewhat surprising, as there have been a number of discussions that confirm a gender-based difference in attitudes towards technology among men and women where men tend to have increasingly positive attitudes and beliefs about technology than women (Grossman & Grossman, 1994; McCoy & Baker, 2000). Indications from more recent research have suggested that the gender gap between computer attitudes is closing (Luchetta, 2000).

Part of the increasing equality of gender beliefs towards technology could be the overall increased use of technology in everyday society increasing exposure to computer among both men and women on a daily basis. McEneaney et al. (2000) in their discussion of pre-service teacher attitudes towards computers concluded that the increasing use of technology both in teacher education and in many aspects of modern life is likely promoting more positive attitudes towards computer technology in general among all groups.

The fact that there were no substantial differences between EFL instructors in university environments, along with the lack of gender differences could also reflect the increased exposure to technology in the general population. The absence of differences between gender or institutional groups reflect findings from a study of teachers' attitudes towards technology in general which concluded that there were no differences in teachers' attitudes towards based on participant gender or university affiliation( McFarlane, Hoffman,& Green, 1997).

#### **4.5. Teachers' Beliefs and attitudes and their Influence on Reported or Intended Practice Using Technology**

This section will summarize and interpret the research findings in an attempt to respond to the third question guiding this study, examining how beliefs and attitudes affect foreign language teachers' intentions and reported practices integrating technology. The research findings are that the majority of teachers use IIT in their own research 96%; however , only few 22% integrated it in their teaching because of the barriers that we explained before. Despite this modest percentage, the majority of teachers expressed positive and favourable attitudes toward e-learning implementation in the future within possible conditions. The majority of users in this study also recognised IIT as a sound, effective pedagogical tool, while a substantial percentage of these participants felt that IIT integration had actually helped their students.

They felt that the computer helped them individualize instruction, targeting learning to specific students and improving the affective environment of their practices. This recognition of the potential of the computer as a tool to individualise foreign language instruction has been recognised in CALL research (Viteli, 1989; Grace, 1998), and may be fulfilling teachers' practicality ethic that Cuban (1986) said would direct teachers' acceptance of any educational innovation. If the innovation is compatible with what teachers recognise as important, the innovation is more likely to be accepted. As pedagogical theory evolves and theories of constructivist, collaborative pedagogy take hold (Chisholm et al., 2000; Collins, 1991), perhaps the usefulness of the computer as educational tool is increasingly being recognised, and this recognition translates into practice.

This positive relationship between perceived utility and teaching using computer technology has been demonstrated in other research in this area. A survey of college faculty examining expectations about technology found that positive expectations about the functionality of technology are related to a higher occurrence of technology use (Mitra et al., 1999). This suggests that the more one uses computers' technology, the more one is likely to see and appreciate the potential of these tools in education. Another study of elementary school teachers found that increased computer experience increases teachers' comfort level with computers, reducing computer anxiety and therefore improving attitudes towards technology (Marcinkiewicz, 1994). Consequently, it's therefore likely that positive attitudes and beliefs resulting from increased exposure and access to computer technology encourage the increased use of technology in teaching. It's likely too that this generally positive attitudes and beliefs toward technology contribute to an increased adoption of e-learning within foreign language teaching.

## **Conclusion**

This chapter provides clear answers for the research questions and confirm our hypotheses. The findings demonstrate generally positive attitudes toward IIT integration into foreign language learning. Teachers sampled in this study held positive beliefs about e-learning's potential effectiveness in EFL instruction. Moreover, the results prove that teachers who ignore computer use and e-learning application tend to reject e-learning implementation strongly. The findings also examined how teachers' beliefs and attitudes affect foreign language teachers' intentions and reported practices integrating technology. Furthermore, the study revealed that teachers' experience and teachers' weekly hours of computer use are the most noticeable factors impacting teachers' use of IIT and their attitudes and beliefs toward e-learning implementation.

**CHAPTER FOUR/ PRACTICAL CONSIDERATIONS &  
RECOMMENDATIONS**



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## **Introduction:**

In their review of the literature on teachers' attitudes toward computers, Dupagne and Krendl (1992) observed that the literature they reviewed generally demonstrates positive teacher attitudes toward computers, a fact that has been shown through the findings of the present study. However, several studies in Dupagne & Krendl's review reported that teachers share a number of concerns about integrating computer technology in their instruction: although teachers may believe in the instructional effectiveness of computers, And recognize the importance of integrating technology into their instruction and course syllabi (Dupagne & Krendl, 1992), successful implementation is often impeded by both external barriers and internal barriers (Ertmer, Addison, Lane, Ross, and Woods, 1999). In the literature, external barriers to computer technology integration are also referred to as environmental factors or first order barriers. Examples include: no support from the administration, lack of resources, unavailability of supportive staff, and a lack of effective training and under use of technology.

**Internal barriers** are also called social cognitive factors, or second order barriers.

These barriers are intrinsic to teachers and refer to personal characteristics such as attitude, belief, fear, will confidence and motivation. According to Ertmer & al. (1999) the effect of many external barriers can be ameliorated by providing adequate training and by confronting teachers' beliefs. However, changes in the classroom will not be very effective till teachers adopt more positive beliefs about technology.

The following section will examine the different barriers found out in the present study. The results show that the most important barriers include: lack of access to and under use of computers and software, inadequate technical and administrative support and training, and insufficient time to plan

## **1. External Barriers to E-learning Implementation**

### **1.1. Unavailability of Interactive Information Technologies:**

It represents the first reason why teachers don't integrate technology in their programmes. The results of the study demonstrate that 52% of the respondents don't use IIT in their classroom due to poor or inexistent access to technology tools. Educational institutions like universities are not providing enough opportunities for both teachers and students to access and use such technologies because of different obstacles that can be: regional, socioeconomic or even political. Although the majority of respondents believe in the role of technology as a promising educational tool facilitating their tasks and improving students' performance, they feel unable to take advantage from such innovation.

Teachers do not have adequate exposure to instructional technology because faculties are not providing the necessary technology tools and programs to them. Whereas the more teachers have exposure to and experience with computer technologies, the better they integrate them into their teaching.

### **1.2. Lack of Teachers' Training and Technological Support**

It represents the second reason why teachers don't integrate IIT in their programs.

The findings of the study show that 20% of teachers do not know how to use computer technologies and how to incorporate them in their programs. 46% of teachers received no training in terms of computer use and integration in classrooms and only 16% enrolled in computing training courses on their own expenses. The majority of teachers who do venture into IIT assisted instruction often do so at their own expense, using their own resources, time and equipment.

As educational budget tightens, career development is often one of the first areas to be eliminated, leaving educators without any significant technical and pedagogical training to comprehensively adopt e-learning and integrate technology into their practices. The findings of this study confirm the earlier research on the importance of training for teachers and the impact of that training on technology integration. The majority of teachers report being self-taught with far fewer undergoing any established, comprehensive, institutionally-based training. Due to prevalent lack of professional development to prepare teachers for introducing e-learning into their profession, teachers are rather reluctant and unprepared to modify their practices. Instructional computer application requires new competencies and knowledge. Not having those competencies and knowledge, teachers should not be expected to adopt technology in the classroom.

Even though teachers have positive attitudes towards technology and want to improve their teaching performance through technology implementation, they are not able to accomplish it. They are not having any kind of familiarity or expertise with computer based instruction. The reason is that teachers have not had appropriate training on how to effectively use the computer in the classroom and on technology skills, ideas, and ways to integrate instructional technology into the curriculum.

The primary recommendation emerging from Dupagne & Krendel's review of the literature was teacher training, referring to the need for educational institutions especially higher education to invest time and resources in in-service and workshop training for teachers. Research by Vannatta & Fordham(2004) determined that a willingness by teachers to commit time above and beyond the call of duty and a risk-taking attitude are important in developing technology using educators. Learning to effectively using technology as an instructional tool requires willingness to make mistakes and learn from them.

### **1.3. Lack of Time**

20% of the informants don't use IIT because they don't have enough time. The findings of the present study reflect what has been demonstrated by numerous in-depth examination of teachers' non-use of technology resources. The research proved that providing more time beside good training would solve the problem and encourage teachers to integrate technology more (Hoffman, 1997). Learning computer skills and planning technology integration into teaching demands plenty of time. Teachers need to commit a certain amount of time not only to get familiar with the technology but also to learn how to plan the technology integration into curriculum and develop appropriate materials. After all they will need classroom time to implement the technology. In the current university educational system, besides other necessary classroom events, not enough time is left to carry out instructionally sound and proper IIT activities. With the continuously development of technology, teachers have to update their knowledge which requires more free time. Not all teachers can find time to spare, and much research has identified lack of time as one of the major factors preventing teachers using technology resources, especially for those teachers who are already overburdened with large classes, overloaded syllabi, and little assistance.

## 2. Internal Barriers to E-Learning Implementation

Three other reasons stated by teachers for not using IIT are as follow: 17% because they do not feel comfortable using IIT, 9% because they don't think that IIT would be effective for students and 9% because they don't want to take risks and would first want to see the results from other teachers using IIT. All the sated reasons are psychological factors representing internal barriers causing teachers to avoid technology.

These barriers include: teachers' established classroom practices and unwillingness to change, lack of relevance of computer technology resources in teaching, lack of self-confidence, personal and behavioural factors of attitude and anxiety, self-efficacy, unwillingness to make a time commitment and take personal risk, computer competency and beliefs and knowledge about perceived relevance of computers (Dusick, 1998).

Ertmer, et al.(1999:12) further emphasize that internal barriers may persist even when external barriers are removed.

Another important factor for explaining resistance to use technology are teachers' traditional instructional styles. These styles are characterized for lecturing, lack of group work, classroom organization of desks by rows, and use of the blackboard as the main instructional tool. Many teachers have been educated in teacher training colleges and schools, at a time in which computers were absent of the educational landscape. In fact, many teachers tend to repeat the instructional pattern they learn while sitting in classroom during many years of schooling. Godfrey (2001:15), citing a number of research studies, adds that teachers' are "*reluctant to hand over control of the learning environment to their students*".

The barriers that were demonstrated in this result support what has already found out in previous research. Berg & Muilenburg (1999) as cited in Simonson (2000:1) examined the literature and conducted a study aiming at examining barriers to distance education. He found out an exhaustive list comprising 64 potential barriers to the implementation of e-learning, below are the eleven strongest barriers identified. Their rank order is:

1. Increased time commitment.
2. Lack of money to implement distance education programs.
3. Organizational resistance to change.
4. Lack of shared vision for distance education in the organization.
5. Lack of support staff to help course development.
6. Lack of strategic planning for distance education.
7. Slow pace of implementation.
8. Faculty compensation/incentives.
9. Difficulty keeping up with technological changes.
10. Lack of technology-enhanced classrooms, labs or infrastructure.

In order to eliminate or at least reduce the effect of these barriers on the improvement of our educational system and adoption of new technologies here are some suggested solutions:

### **3. Faculty and Organisational Support**

Bates and pool (2003:7) points out that educational technology “*requires a relatively organizational support structure*”, and “*failure...is one of the major barriers to the effective use of technology in teaching*”. Faculty commitment is essential in the realization of any innovation. It’s also the case for distance learning programs. Care must be taken to craft distance education programs. This craftsmanship is of a team comprised of administrators at all levels as leaders, faculty members, and technical staff. It’s this craftsmanship that will actively involve in the conception and planning processes, facilitating the consecutive process of implementation (ibid)

Organizational problems, especially infrastructure and technology problems, also present challenges. Faculties that teach distance education courses need organizational and administrative support from the institution. Funding should be provided to create special teachers and administrators units for managing the program. When technology is used, the costs increase substantially for both students and institutions. Universities should think about the costs of installing, maintaining, using and upgrading technology to support distance services. Institutions must also plan to have competent computer staff, with ongoing training, to support IIT use. Moreover Teachers support can cover different areas such us



### **3.1. Technical Support:**

Teachers are almost all the time unable to overcome technical problems facing them during teaching sessions, that's why they always need assistance with equipment in classroom (Hardy, 1998)

### **3.2. Pedagogical Support:**

Teachers should be informed on the way they use certain technology equipment, how they integrate them into their instruction, how they plan for their use, and how to improve the students' performance with the adequate use of software programs that promote students thinking skills rather than mere drill and practise.(Hoffman, 1998)

### **3.3. Teachers Training:**

As it was show this factor occupies an important place as an environmental barrier (Hardy,1998). Sloman(2001:77) proposes that *“training should identify the appropriate wins in their organisation rather than letting the availability of technology determine their agenda”*. Computers, video equipment, communication software, and the like present challenges and frustrations. Faculty must provide all these technologies and must know how to use them if they are to teach distance courses. Training teachers, staff and students is imperative to succeed in the distance learning experience. They should receive clear directions on integrating technology in classroom and construct purposeful and meaningful educational technology courses.

#### **4. An Overview of the Algerian Universities Experience with IIT and ICT:**

With the emergence of virtual universities around the world, e-learning adaptation in the Algerian educational system seems to remain a “virtual” project.

Through the analysis of the existence of different educational and scientific institutions on the web, we noticed an increase of the number of websites from 700 at the end of 2002 to 1113 in 2004(according to CERIST). Among this modest number, 111 are websites reserved for universities (31), educational institutes (28), research centres (13), high schools (10), and other university centres. This presence enables both universities and teachers to achieve a great national perception and a significant international involvement.

Let’s take a deeper look at the content of the different universities’ websites, and analyse the kind of information they convey, the targeted audience (to whom they’re addressed), and their usage. We are all aware of the fundamental debate concerning IIT integration in the field of education. The important risks that rise appear through the strong debates about a possible technology substitution for human-mediated education

An examination of these websites reveal content generally limited to a presentation of the university and a historical overview of its region. The information are rare, hardly up to date and uninteresting for the users and the public as well. We further notice that the information on these websites are generally conveyed for the research function rather than the pedagogic one. This is probably due to the difficulties that hinder our universities in providing an easy internet access to all students at the same time. Thus, the university website here doesn’t play any pedagogical or instructional role for students. Except some statistical charts/diagrams and possible online students’ registration, the available information deal generally with current research themes and seminars’ schedule.

Usually, the seminars' Résumés - when they exist- don't treat the content, but only the authors and the titles of their interventions. Consequently, the website content is a victim of a counter-nature practice which refers to the retention of information: a phenomenon widely spread in the Algerian educational field and manifested through the centralisation of this website. Website centralisation refers to the fact that each university or educational/scientific establishments possesses only one website without any extra links for: other related pedagogical departments, online libraries, online instructional resources (books, revues...), online courses or even private spaces between teachers and students. This over control of information has to deal mainly with the whims of a colloquial exhausting bureaucracy.

The services that these website provide for users don't offer any possibility of interaction. They are designated to passive users who often or never seek any kind of interaction either from their colleagues or the administrative staff. Yet, internet and IIT are like any other technology that can be limited to information consumption and can be a profitable business as well. In this case, the mastery of its usage seems to be a must in order to improve its content with more original and up to date data that could interest the consumers (users), and develop a worthwhile product. Though Internet and IIT access nowadays is considered as a necessity; if it's not enhanced with an appropriate dynamic social activity, it would remain at best, a tool for consuming the information produced elsewhere, as a unique function. That's why concerning IIT, paradoxically, the hardest task in a developing country such as Algeria, represents the poor electronic access to the local/ national information. The web and IIT in general, almost don't intervene in any pedagogical activity. Up to this day, there are no websites or web pages devoted to courses, like we can see in other countries around the world. The universities still don't provide students with free, unlimited internet access. Moreover, there is little exchange through e-mail either between students or between teachers and students.

Around the majority of Algerian universities, amphitheatres of about 500 to 1000 students are never equipped with technological devices such as the overhead projectors as a bare minimum. These kind of equipments, because of certain security conditions, are allotted only for National/ international seminars and conferences within the frame of research activities.

## **5. Limitation of this Research**

As is characteristic off all survey research using self-report mechanisms, it must be recognized that the data obtained from this research may not be completely accurate and merely represents individual perceptions of actions and opinions. In addition, an inherent limitation of questionnaire-based data is its inability to explore the issue at a deeper, more profound level. As a result, this study has only been able to scratch the surface of the issue it set out to explore. The research instrument used in this research which is the questionnaire is new instrument, developed for this study, and has not been rigorously tested to ensure reliability and accuracy in examining these issues. The results of the questionnaire may not be wholly representative of the multiple factors included in and influencing on beliefs and attitudes.

Demographic criteria were limited to age, gender, teaching experience and educational qualifications. In addition, results from the research, sampling only EFL teachers and not other types of foreign language instructors, may be difficult to generalise to other foreign language teachers, as EFL profession is unique in its employment opportunities and the individuals it attracts. The study shows also certain limitation in term of the subject matter taught, it did not examine specifically the various aspects and benefits or drawbacks of technology integration into a particular subject matter/module

## **6. Recommendations for Future Research**

While this research may have contributed some insights into our understanding of the complex factors that drive teachers' attitudes/beliefs and actions using educational innovation, a more complete understanding of the issue will only be obtained through more in-depth analysis of the attitudinal variables and multiple factors shaping beliefs and attitudes' systems. Given the pervasive nature of change in today's societies, innovation is a recurring issue that professionals must confront on a regular basis. In the teaching profession, more comprehensive investigation into how beliefs and attitudes influence teacher acceptance and evaluation of educational innovation can only further enlighten today's teaching professionals and the professional development programs that serve to prepare them. Research approaches combining survey research with individual interviews and classroom observations would provide more in-depth analysis of the constitution of foreign language teacher belief systems and their impact on actions using computers in foreign language instruction.

In addition, research surveying populations more representative of a wider variety of foreign language teachers would provide a more holistic and general view of the multi-faceted nature of foreign language teachers' beliefs and attitudes towards technology-mediated language learning in a range of educational contexts. The EFL profession is somewhat unique, attracting a wide variety of individuals often motivated by creativity and imagination. Further research should be conducted on a broader sample of foreign language instructors to compare belief systems towards e-learning efficiency in delivering language learning instruction.

Further findings in this area would serve to refine and validate the theoretical framework proposed in this research. An investigation into the numerous contextual factors such as teachers' personal educational experience, cultural backgrounds, employment status, educational philosophy and the degree of individual innovativeness would provide further insights into the constitution of teachers' beliefs and attitudes.

Examination of all these factors should be not only from a self-reporting research approach but also from an observational survey approach, where individual teaching practices are monitored and analysed. A research approach using direct observational strategies may be useful in illustrating the actual effect of beliefs and attitudes on educational practice integrating educational technologies. These types of research approaches may provide further insight into the consistency of teachers beliefs system and how these beliefs/ attitudes translate into actual practices using educational technology and educational innovation.

## **Conclusion**

It is clear that what brings e-learning/distance education to the forefront of educational interest is the highly sophisticated delivery and interactivity now available with electronic learning. In e-learning and distance education, technology plays a large and significant role. Because these courses revolve around technology, it is vital that technology only be used when it is the best alternative for supporting course requirement. Teachers should have the competency required for building and operating technology based courses to achieve the designed objectives. With proper use, technology offers a way to bestow or construct learning opportunities unlike ever before available.

## **General Conclusion**

Results from this research demonstrate the enthusiasm English language teachers have towards e-learning implementation in university programmes. Given the ubiquitous nature of computer technologies in Algerian society, teachers -like other professionals- are increasingly recognising the value of these technology tools in their profession. Foreign language teachers, like many other educators, are seeing computer technology more and more as a pedagogical tool that can enrich their practices. An example of this tendency is the statement mentioned by a participant in this study who stated that “technology can certainly augment, but not replace what EFL teachers can do”.

Perceptions of computer technology appear to be gradually evolving out of the technology hype of earlier decades, into a more critical and analytical understanding of the benefits and limitations of this educational technology. However, despite the increasing enthusiasm perception of the effectiveness of educational computer technology among foreign language teachers, foreign language educational practices exploring and using this technology are often thwarted by barriers within educational environments constraining the use of this educational technology. The most significant factor preventing foreign language teachers’ use of this innovation is restricted access to computer facilities. The only opportunities for use of technology mediated language learning approaches are those initialised by the teachers’ with their own and personal planning and equipment. This understandably frustrates many teachers who would like to make use of e-learning. This constrained access to technology tools in educational environments reduces the opportunities for teachers to explore and experience what e-learning can add into their usual teaching practices. As this study has shown, the more one uses computers, the more one is likely to see and appreciate the potential of these tools in education. As a result, this lack of access to technology likely perpetuates negative attitude and beliefs toward e-learning application in language classrooms. This finding confirms our hypothesis.



It appears that one of the keys to improving teachers' attitudes and beliefs toward e-learning is to increase teachers' exposure to educational technology tools. The striking increase shown in positive attitudes and IIT use among participants in this research, reporting increased weekly computer use, demonstrates the clear link between use and attitude/belief. As Michael Levy (1999) concluded from a survey of CALL practitioners, it is crucial for teachers to develop a sincere appreciation for the potential of these technological tools in order to ensure the successful use of this educational innovation. The appreciation must equally extend to educational administrators and be fostered with increased training opportunities, and time allowance for professional development and planning.

Another important point that should be considered is the involvement of teachers in the implementation process of e-learning so that they can see by themselves the possibilities and benefits of educational technology. In order to do so, adequate facilities, time, teacher-directed training and pedagogical and technical support, as we have discussed, must be provided. Only then will teachers of English as a foreign language be able to fully experience and explore the benefits reported in research examining e-learning integration into language teaching.

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## **APPENDIX**

## Questionnaire to Teachers

Dear teachers. This questionnaire is a data collection tool, on the use of e-learning media and materials, in order to prepare a Magistère dissertation. Your contribution will be of great help to make the research work achieve its objectives. You are required to answer the questions by ticking your choices in the corresponding boxes or complete your own information whenever necessary. Thank you very much.

-----

- 1/ What is your age?  23-29 years old  40-49 years old  
 30-39 years old  Over 50 years old
- 2/ Are you:  Female  Male

- 3/ What is your Degree?  B.A Degree  M.A/Magister Degree  
 PhD/ Doctorate Degree  Other: please, specify .....

- 4/ Have you taught or do you teach English as a foreign language (EFL) at university?  
 Yes  No

- 5/ If so, how long have you been teaching?  
 Less than one year  1-5 years  6-10 years  
 10-20 years  more than 20 years

- 6/ Which subject matter/module do you teach? (Please, tick your choices)

- Civilization  literature  phonetics  
 Grammar  Oral expression  written expression  
 Linguistics.  Other subjects? Please, specify: .....

- 7/ Do you have a computer at home?

- Yes  No

8/ Do you have internet access at home?

- Yes                      No

9/ How many hours a week do you spend using a computer?

- None                       Less than 1 hour                       1- 3hours  
 4 -7 hours                       7-10 hours                       more than 10hours

10/ How would you rate your experience with computers?

- I have never used a computer and I don't plan to anytime soon  
 I have never used a computer but I would like to learn  
 I use applications like word processing, spreadsheets...etc  
 I use computers for instruction in the classroom

11/ How often do you use it?       Daily       weekly       occasionally

12/ What type of computer application(s) do you use on a regular basis?

- E-mail                       word processing                       internet  
 Other applications? Please specify.....  
 I don't use any computer application regularly

13/ Have you received training on how to integrate technology tools into your EFL teaching?

- Yes.       No.       No, I learnt by myself

14/ If yes, what type of training have you received?

- basic computer literacy (on/off operations, how to run programs...)  
 computer applications (word processing, Excell, spreadsheets...)  
 computer integration (how to use computers in classrooms)

15/ Where did you receive your training?

- Self taught                       college or university                       A specialized school  
 Other: please specify: .....

16/ Have you ever used Interactive Information Technology in your EFL teaching? (ITT: the different computer and telecommunication based systems used in e-learning such as: e-mail, world wide web (www), CD-Rom, computer conferencing, video conferencing and audio graphic conferencing...etc

- Yes  No (if your answer is No, please go to question 21 below)

17/ If yes, which IIT have you used/do you use in your EFL teaching? (tick your choices)

- |   |   |
|---|---|
| <input type="checkbox"/> E-mail               | <input type="checkbox"/> computer conferencing        |
| <input type="checkbox"/> www (World Wide Web) | <input type="checkbox"/> video conferencing           |
| <input type="checkbox"/> CD-Rom               | <input type="checkbox"/> Audio graphic conferencing   |
| <input type="checkbox"/> Internet             | <input type="checkbox"/> other (please specify) ..... |
|   | .....   |

Please, explain for which reason/purpose did you use these IIT.....  
.....  
.....

18/ Where have you used / do you use IIT with your EFL students?

- in a computer Lab  in a classroom  In both Lab and classroom

19/ Where would you prefer to use IIT with your EFL students?

- in a computer Lab  in a classroom  In both

20/ Do you think using IIT helped your students?

- Yes  No

Please, explain how they did or how they did not help: .....  
.....  
.....

21/ If you have not used IIT in your EFL teaching, why haven't you used them?

- I don't have access to computer and IIT facilities  
 I don't think IIT would teach my students more effectively  
 I don't feel comfortable using IIT

I would first want to see the results from other teachers using IIT

I don't have enough time

I don't know how to integrate IIT in my EFL teaching

I haven't used IIT because .....

.....  
.....

22/ What would make you more likely to use IIT in your EFL teaching?

Increased accessibility to IIT facilities

Increased training

Increased time

Increased technological and pedagogical support

Other: please specify .....

.....

Nothing because.....

.....

23/ If the above conditions were satisfied, would you use IIT?

Yes

No

24/ Whatever your answer, please explain why.....

.....  
.....

25/ If all the conditions in question 22 above were satisfied, how likely would you be to use the following IIT and computer applications in the next years? (please tick in the table below)

Computer applications	Very likely	Likely	Not likely	Not sure
Email				
WWW(world wide web)				
Internet				
computer conferencing				
Audio conferencing				
Video conferencing				
Audio graphic conferencing				

26/ Do you use computer and information technology applications in your own research?

- Yes                       No

Whatever your answer, please specify why? .....  
 .....  
 .....

27/ Within possible/positive conditions, are you willing to generalise e-learning of your subject to your EFL students?

- Yes                       No

\*Please, explain why .....  
 .....

28/ What kind of feeling or attitude does the use of computer and technology applications provide for you?

- Confidence               enjoyment               pleasure  
 Frustration/fear         embarrassment         hindrance

29/ The challenge of implementing e-learning in Teaching English as a Foreign Language



(TEFL) is rather exciting or frustrating for you?

Exciting

Frustrating

Please, give the reasons of your choice .....  
.....  
.....

30/ Do you think, that in the future, the department / university must rely on e-learning?

Yes

No

\*Please, explain .....  
.....

**Will you please add (below) any other comments you consider important for this issue. Thank you very much for your help.**

.....  
.....  
.....  
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.....  
.....

## Résumé

Ce travail de recherche a pour objectif d'étudier l'attitude des enseignants de langue étrangère "l'anglais" envers l'intégration de l'apprentissage électronique comme méthode pédagogique d'enseignement connu sous le nom de E-Learning au sein des universités Algériennes, afin de cerner les facteurs influençant cette nouvelle méthode. L'analyse du résultat du Questionnaire a révélé que le nombre d'heures d'utilisation hebdomadaire de l'ordinateur par les enseignants et leurs expériences représentent les facteurs les plus influents sur leurs avis vis à vis du E-learning. Les résultats ont démontrés que L'utilisation régulière de la technologie influence positivement à la fois les attitudes des enseignants et aussi leurs perceptions de l'efficacité de la technologie comme outil d'enseignement. Les enseignants ayant une expérience entre 10 et 20 ans d'enseignement considèrent positivement les avantages de l'incorporation de l'apprentissage électronique dans l'enseignement des langues étrangères. Les autres facteurs comme le genre, l'âge, le niveau intellectuel et l'affiliation universitaire n'ont pas influencé de façon significative l'attitude des enseignants et leurs attitudes envers l'intégration d'apprentissage électronique dans l'enseignement de la langue anglaise comme langue étrangère.

## ملخص

يهدف هذا البحث الى دراسة موقف أساتذة اللغة الأجنبية-الإنجليزية- من إدماج التعلم الإلكتروني المعروف بمصطلح E-Learning كنوع من الطرائق البيداغوجية الممارسة في الجامعات الجزائرية ، لغاية تحديد العوامل المؤثرة على هذه الطريقة الجديدة .

إن تحليل نتائج الإستبيان كشف أن حجم وقت الاستخدام اليومي للحاسوب من طرف الأساتذة وكذا عدد سنوات خبرتهم تمثل العوامل المؤثرة في رأيهم بشأن هذا الأسلوب الحديث .

لقد بينت النتائج أن الاستخدام المنتظم للوسائل التكنولوجية من طرف الأساتذة يساعد في اعتناقهم لهذا الأسلوب كما يزيد من إدراكهم لفعالية هذه الوسائل ، كما أن الأساتذة الذين يمارسون التعليم من 10 إلى 20 سنة يتوقعون نتائج إيجابية لإدخال التعلم الإلكتروني في أساليب التدريس .

العوامل الأخرى كالجنس أو العمر أو المستوى الجامعي والثقافي ليس لها تأثير ملموس على موقف الأساتذة من إدماج التعلم الإلكتروني في تعليم اللغة الإنجليزية على مستوى الجامعة الجزائرية