# Asian University

# Faculty of Liberal Arts

# MEd TESOL Program

**The Use of Multimedia Based Learning Materials in English Language Teaching in Developing Educational Systems**

**A Pilot Study in Iraqi Secondary Education**

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**A THESIS**

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**Autobiographical Statement**

Ahmed Falih was born in a rural sub-district called Bab-Suleiman in Abul-Khaseeb district, Basra, Iraq where he completed his primary and secondary schools. He has a BA in English Language, from the College of Education, Basra University. He has been working as an employee at Arab Gulf Studies Center, Basra University since 2003. He took a crucial part in translating the Center's two main magazines (Arabian Gulf and The Economist) into English. He was also responsible for the cultural exchange between the Center where he works and universities and centers across the world. Moreover, Ahmed worked with other teachers and employees in the same Center in conducting several English language courses devoted to the development of Center's teachers, researchers and employees.

# Abstract

As technology development has touched every part of our life and as education is part of our world, it is interesting to make use of innovative tools and bring it inside classrooms. Multimedia based learning materials become more important in education everywhere across the world for its powerful potentials to develop language education.

The use of multimedia based learning materials in the classrooms was investigated in Iraq along a period of two months. This study carried out in Iraq to investigate the effectiveness of multimedia based learning materials on teaching process and whether Iraqi learners favor the use of multimedia materials over the traditional textbooks.

Sixty learners of a secondary school for boys in Basra were the subjects of this study. The subjects were split into two groups; thirty subjects were in the experimental group EG, and the other thirty ones were in the control group CG. Both groups were taught separately, one through multimedia based learning materials inside the digital classroom, the other through a traditional textbook.

An Independent Samples T Test was carried out, and showed that there was a significant difference between the mean of the two groups. It represents that multimedia based learning materials have a significant positive effect on learners' scores. Also, A Likert Scale 1-5 analysis indicated that EG learners strongly preferred multimedia based learning materials to traditional textbooks.

Some limitations of this study are acknowledged. And as the study of multimedia based learning materials is relatively new in learning education in Iraq, further research is needed in the effectiveness of multimedia based learning materials in teaching other level of students including primary and secondary schools.

# Contents

**Chapter 1: Introduction**

As is clear from the title of this thesis, it is an investigation into the role of multimedia- based learning materials in today's classrooms. This study is based on the Fifth Grade Secondary School students' scores, as measured by an achievement test, and questionnaire on attitudes. The purpose of this introductory chapter is to present the problem of this study, describes its significance, and present the value, scope and procedures of this study. It concludes with the hypotheses and questions.

### 1.1 Problem Statement

First, the researcher believes in the potential of multimedia-based learning materials in the developing educational community in Iraq, specifically in Basra. The novelty of multimedia materials could change the educational system in Iraq if conducted well. That is because today's learners are in contact with daily different aspects of technology. They are part of this speedily changing society, and they are in face to face confrontation with innovative tools. In response to innovative technological development, embracing such innovative tools to advance language learning becomes a necessity (Dudeney & Hockly, 2007).

Second, at the moment, English teaching is undeveloped in Iraq due to the negligence education has been suffering from for a long time. The researcher of this study believes in the power that multimedia-based learning materials have on language learning as multimedia learning materials enhance the authentic exposure to English as a language. Therefore this fact creates a challenge that calls for investigation for the purpose of estimating empirically the impact of multimedia-based materials on language learning in Iraq.

### 1.2 Significance of the Study

First, the significance of this study lies in the fact that the results of this study, after being analyzed, will have a considerable effect upon the society and individual learners inside Iraq, and perhaps even abroad. Next, this study is an essential attempt to investigate the impact of multimedia-based learning materials upon the Iraqi learners' scores. Also, the findings of this study will encourage not only individual learners, but also Heads of Basra Directorates of Education (where the experiment

was conducted) to adopt such a role for technology in the classroom as a real attempt to develop education.

Finally, to the best of the researcher's knowledge, very few studies have been carried out in Iraq investigating the role of technology-based learning materials on education in intermediate and secondary schools. Therefore, this study can be considered as a further support to the adoption of multimedia-based classrooms.

### 1.3 Value of the Study

First, it is hoped that the findings of this study would be helpful in fostering secondary school learners' ability to learn effectively English as a Foreign Language (EFL). Second, it is hoped that such findings would be helpful in giving teachers and students training on using a computer in a classroom teaching and learning. Finally, it is hoped that these findings would be useful in paving the way for more work in technology-based learning classrooms.

### 1.4  Scope of the Study

This study is limited to the male students of the Fifth Grade Secondary School in Abul Khaseeb district in Basra city during the academic year 2011-2012. The sample of materials is selected from the CD-ROM of the Headway English Course – Pre-Intermediate level (the first five units) devoted to teaching the Experimental Group (EG). The Headway first five units in the textbook as mentioned in an Appendix C will be used in teaching the Control Group (CG). The results of this study represented the first contact Iraqi students had with multimedia-based learning materials. Therefore, the external validity is limited to the present study conducted in Iraq.

### 1.5 Procedures of the Study

In order to accomplish the aim of this study, several procedures are carefully followed. First, a review of literature that is related to the present study about using multimedia to teach English for secondary school levels is carried out. Second, to arrive at whether or not multimedia-based learning affects the scores of learners in an achievement test at the end of the period of eight weeks teaching, an experiment is designed and conducted in a foreign language situation. A sample of sixty learners is

randomly selected from Abul Khaseeb Fifth-Grade-Secondary School for Boys; half of them are in the EG and the rest are in the CG.

Third, for the purpose of attaining valid results from this study, the learners in the two groups are to be equalized in age, level of education and years of study. Fourth, the digital classroom in which the experiment is to be conducted in the assigned school is being checked for readiness a day before the start of experiment. Fifth, thirty copies of Headway Pre-Intermediate textbooks are to be distributed among learners of the control group. The experimental group is taught materials with the aid of multimedia in the form of a CD-ROM in a computer.

Sixth, at the end of the two-month period of teaching, the two groups are subjected to a progress achievement test, and the results are to be analyzed. Seventh, thirty copies of the motivation questionnaire are to be distributed among the learners of the experimental group in order to assess their attitudes towards multimedia use in the classroom. Finally, conclusions and future research are drawn from this study.

### 1.6 Hypotheses and Questions
#### 1.6.1 Research Questions

This research seeks to answer the following two research questions:

**1.** Do Iraqi secondary school students favor the use of multimedia based learning materials over traditional textbooks?
**2.** Do multimedia based learning materials have any influence on English language learning and teaching in Iraqi secondary education, and is this reflected in the students' scores in an achievement test?

#### 1.6.2 Research Hypotheses

**1.** Iraqi students favor the use of multimedia based learning materials over traditional textbooks**.**
**2.** There is a positive relationship between multimedia-based learning materials and the effectiveness of English language learning and teaching in Iraq.

**Chapter 2: Review of Literature**

The literature reviewed in this study intends to provide readers with a new insight into the role technology plays in bringing change in communities in general and education in particular. This chapter introduces the readers to the miscellaneous technological developments which have altered all societal aspects everywhere as the world has become a small village. The introduction of multimedia and new technologies into education has also been discussed in this chapter, and how the traditional roles of a teacher and students are currently changing.

The other point discussed in this chapter is the effect of multimedia-based learning materials on Second Language Acquisition (SLA), and how multimedia tools foster SLA through its capacity to provide comprehensible input. Finally, readers are introduced to some challenges which, if not controlled, will affect the effectiveness of the use of multimedia-based learning materials in classrooms.

### 2.1 Technological Developments and Changes in Society

At present, technology is clearly felt everywhere. Examples can be found in our immediate environment, health, agriculture, transportation, and education etc. In other words, civilization in the 21$^{st}$ century cannot escape technology or its product: the clothes we wear, the food we eat, and the tools we use (Easton, 2010).

Regarding the effect of technology upon agriculture, as a result of technological improvement and the use of innovative tools such as tractors, farmers produce higher valued products (Cooper & Sigalla, 1996).

Also, people's life and work, as indicated by Romando's 2003 study (as cited in Nelson, Palonsky and McCarthy, 2007), are being changed by technology at a global level at the beginning of 21$^{st}$ century. Muller, Eklund and Sharma (2006) indicated that since the industrial revolution, technology has brought change to all aspects of life from agriculture and transportation to modern culture, and the quality of life for many has been upgraded as well.

Besides, technological advancement has an effect on the health sector. Easton (2010) brought to light that technology nowadays improved healthcare standards where lower death rates of infants in developed countries are tangible.

Nowadays, the quality of transportation has also been improved through technological development. In most of the world developed countries namely Japan, USA, France and other European countries, high speed rail services are being operated to increase the effectiveness of railway transportation, and to reduce traffic (Cox, 1997). Moreover, Cox presented an example of the growing airline sector where airline usage continues to develop, and airline travel rises in number day by day which is slightly lowering the percentage of travelers by automobiles.

Still discussion goes on the effect of technological development upon the society. With the emergence of information technology (IT), according to Zhang (2005) people's relations and their living styles have changed. A great number of people can work, learn and run businesses via their computers at home. Zhang added that this era of information revolution has granted people all over the world the big chance to exchange information and knowledge, and make friendships and mutually beneficial relationships via websites.

Furthermore, technology has also had a positive effect on mass media, which resulted in new techniques enabling broadcasts to reach a wider audience (Negroponte, 1995). A good example is *Al-Jazeera English* satellite channel which has a website through which Al-Jazeera was receiving round the clock updates from protesters on the Egyptian uprising in Al-Tahrir square. Protesters were also posting their social comments and views on the "*Arab Spring*" on the commonly used social media websites: Facebook and Twitter.

Daily lifestyle of communication has also been influenced as a result of technology through the use of email which according to Dudeney and Hockly (2007) helps people to keep in touch easily and comfortably with people in different communities across the world and helps in their professional development. This, according to Dudeney and Hockly also has an effect on communication between teachers and students. It will assist teachers who are making use of email to keep updated on the debate on common professional topics and build an international network and to maintain contact with their students.

According to Tuviera-Leccaoz (2000), professional development is significant and has to be an ongoing process that includes an individual and staff development in the age of technology in order to attain effective teaching. Dudeney and Hockly (2007)

claimed that emails also allow teachers to communicate with their students outside classrooms, for example in receiving and returning homework and assignments.

With respect to 'digital natives', who are part of this technology-oriented society, they are defined by Prensky (2001) as students who "have spent their entire lives surrounded by and using computers, videogames, digital music players, video cams, cell phones, and all other toys and tools of the digital age"(p.1).

These digital natives, who are proficient in the use of IT and Internet,  have their own characteristics which can be summarized as follows: they are used to receiving information faster, work best when networked, and they like multi-tasking (Brinkhuis, 2007). Brinkhuis went further and claimed that today's generation of digital students have a short attention span when asked to participate in traditional learning activities; however when participating in learning activities incorporating multimedia tools, they exhibit a high level of attention.

Today's students, according to Prensky (2001), are no longer pleased to learn through the educational system that was designed to teach their teachers. Prensky added that digital natives are different from their digital immigrant teachers in the sense that the latter have little appreciation for new skills which are welcomed by the digital natives and foreign to the immigrants. Also, they are different as stated by Prensky in the fact that today's teachers do not communicate in the language and style of their students as they choose to teach slowly, step by step, individually and one thing at a time. Finally he stated that if digital immigrants really would like to be close to their students, they will have to change and stop grousing.

Recently, the use of technology in the classroom is becoming significant and for many reasons it will become a normal segment of English Language Teaching (ELT) in the coming years (Dudeney & Hockly, 2007). These reasons are: (1) modern students live in a world where computers/laptops, cell phones and other personal digital devices are common tools (Apple Classrooms of Tomorrow-Today, 2008); (2) the increasingly available internet access; and  (3) ICT tools provide learners with much exposure and practice in all language skills such as speaking, listening, writing and reading (Dudeney & Hockly, 2007).

Warschauer (2002) declared that, to make effective use of Information and Communications Technology ICT, the development of learners along with the development of language should be considered. This, as Warschauer referred to, would take researchers' attention to the importance of teachers' training with technology. As a result of their study and according to the students' opinions from surveys and interviews, Grimes and Warchauer (2008) concluded that students considered technological tools, such as a laptop in classroom, as a study tool that facilitates schoolwork. Therefore, as claimed by Warschauer that at a classroom level and as a development of learners and teachers, educationalists have to reconsider such a development to enable learners to make use of the marriage between technological tools and English language learning to acquire English as a second language (L2).

According to a number of studies, computer technology has received much attention in foreign language teaching and learning: it could improve learning achievement in general and language learning achievements in specific, and could enhance motivation and promote learning (Chen, 2005). Besides, Ilter (2009) claimed that learning a foreign language is a difficult process, and learners are in need to be motivated and encouraged to acquire an L2 because, according to Ilter, "technology in English as a Foreign Language EFL classrooms provides meaningful and interesting process in language learning, and students can be more motivated with this technological development in EFL classrooms"(p.18).

Finally, with each passing year, technology enters the culture of education, and with the rapid influx of technology into education, the effect of technology upon schools cannot be ignored (Alexiou-Ray, Wilson, Wright & Peirano, 2003). Thus, and according to the above mentioned literature, the researcher believes that education should be reconsidered.

## 2.2 Multimedia Introduction in Education

As stated above, technology has changed all aspects of lifestyles, and since technological tools, including multimedia-based learning materials, are popular everywhere, the infusion of technology inside the classroom becomes a necessity for second language learning. And because of technology being infused inside education, the role of the teacher and the learner also are changed.

Discussion will focus on two different perspectives which are the core parts of education changed by the adoption of technology to the classroom: a new role for the teacher and a new role for the student.

### 2.2.1    Teacher's Role

First, the proliferation of technology in the 21$^{st}$ century has changed the role of teachers and learners in the classroom. Therefore, the researcher intends to review some literature on the teacher's new role as determined by technology. Kozma (2003) found that the practice of modern teachers was changed because of the adoption of technological tools inside classrooms. Kozma added that a teacher's role as the primary source of information was shifted to one who provides students with structure and advice, monitors their progress, and assesses their accomplishments.

Second, it is the right time for English language teachers to integrate technological tools, including electronic portfolios, which if well introduced to learners, could facilitate the language learning process (Aliweh, 2011). Possession of positive attitude to use technology in classrooms is vital to the successful use of technology inside teachers' classrooms. Such attitude is developed when teachers are comfortable with technology, and are knowledgeable on its use (Afshari, Abu Bakar, Luan, Abu Samah & Fooi, 2009).

Also, Dwyer (1994) stated that as time passes, technology use changed the way teachers teach, and as they grow in their use of technology in classrooms, their teaching becomes more student-focused. The new teacher's roles, as stated by Murchu (2005), such as instructional designer, trainer, collaborator, student, silent partner, team coordinator, advisor and monitor and assessment specialist are made possible by the use of technology.

Moreover, in the (2003) study by Thao, there was an indication that the use of multimedia in teaching language brought authentic materials inside the classrooms which in turn enabled learners to maximize their benefits, and fulfill their tasks effectively. Healey (2002) suggested that the use of technology inside the classroom offers a great deal of authentic materials for a good learning environment.

Ehsani and Knodt (1998) declared that with the advent of multimedia-based learning materials, classrooms become more flexible, and learners have their own

determination of their own learning pace. Also, in the same regard Teoh and Neo (2007) indicated that multimedia learning gives learners the chance to take responsibility for their own learning process which means that learners learn according to their individual pace.

Furthermore, some researchers stressed the need for teachers' training on how to use new technological tools inside classroom for the purpose of satisfying results. Alexiou-Ray et al. (2003) discussed the issue of teachers' training. They claimed that a teacher must be equipped with the technological tools necessary in a new era of classrooms.

It is more likely, according to Afshari et al. (2009), that teachers integrate technology based learning materials in their courses when they are already provided with sufficient time to practice during their training programs. This is because the professional development of teachers is the leading point in any successful technology based learning program.

Wang (2007) also in a case study emphasized the need for continuous and ongoing teacher training so the teachers will be able to utilize the available technological tools in delivering effective and valuable learning to meet their learners' needs. In this regard, teachers do not need to know how a computer works, but rather "how to use and apply a computer in a classroom" (Antifaiff, 2000, p.5). Also Antifaiff made a reference to the teachers' striving when integrating technology in their classrooms for two goals. These goals are to become a computer-using teacher and a computer to become a teaching partner.

In sum, K. Neo and M. Neo (2002) showed that with the emergence of technology, the classroom multimedia brought a new paradigm in teaching and learning process and changed the way teachers teach and students learn. K. Neo and M. Neo added that teachers with multimedia have more options to represent their classroom content using a combination of media rather than a text only which makes a reference to the fact that their content can be interactive and media-rich.

### 2.2.2 Student's Role

With the introduction of technology and multimedia in education, the roles of both teachers and students have changed. The researcher has already discussed the teacher's role, and it is time to investigate how the role of learners has been affected as a result of such technological introduction in education. Discussion about autonomy of learning, centeredness of learning, cooperative learning in the language classroom and motivation and attitudes toward learning will be discussed below in detail.

### 2.2.2.1 Autonomy of Learning

Autonomy of learning needs to be discussed for the reason that learning which takes the shape of self- direction is seen as a result of learner own self-initiated interaction with the world (Thanasoulas, 2000). It is also important as indicated by (Murchu, 2005) because learning is marked by the need for learners to work at their pace, see their own goals and manage their own time.

Autonomy of learning as defined by Healey (2002) is "the degree of independence the learner is given in setting language learning goals, the path to the goal, the pace of learning, and the measurement of success" (p.1). Healey also shed light on the fact that technology's role in fostering autonomy has been praised over the years. She added that teachers play a significant role in promoting learners to become independent.

Technology and multimedia provide ways to enhance learner autonomy. Wilson, Wright and Stallworth (2003) found in their study that students reported that electronic portfolios provided them with the opportunity to hold responsibility for their learning, and had the power for boosting their independence of learning.

Also, from Chen's 2005 study on the pedagogical benefits of computer-mediated communication, it was revealed that engaging learners in authentic and meaningful interactions with other learners across the world via the Internet can foster learners' motivation. This motivation in turn can enhance learners to be more independent in their learning process. According to Negroponte, Resnick and Cassell (1997), digital technologies can enable students to become more active and independent learners. They added that computers will make students become autonomous in their learning.

Furthermore, Murchu (2005) found that one of the pedagogical practices was that technology-supported language classroom developed active and autonomous learning in the Irish Gaelic elementary language classroom. In a study to explore whether multimedia has a place in language teaching at Hanoi University of Foreign Studies, Thao (2003) concluded that learners need to become more autonomous and independent for their own learning.

Besides, technology has the power to benefit learners to work on their pace and encourage them to be autonomous (Saba, 2009). Saba went further and stated that technology use can alter learning to be individualized in which learners are responsible for their learning rate. Saba concluded by shedding light on the fact that the autonomy of learning helps learners to avoid being embarrassed "by allowing them to learn and make mistakes in a non-public manner" (p.6).

Finally, as discussion is still circled around the autonomy of learning, it is worth making a reference to the digital natives who, according to Barnes, Marateo and Ferris (2007), are unique as they grow up in this generation of digital technologies. Barnes et al. (2007) added that since digital natives are living surrounded with miscellaneous technological tools, they tend to make conscious choices about learning techniques fitting their desires and interests. Barnes et al. claimed that these digital native learners are currently bored with the traditional classrooms as they have a short attention span, and have a great desire for active and engaged learning experiences. Barnes et al. suggested that since digital natives inclined in their learning towards autonomy and independence, educators have to modify pedagogies to meet today's learners' needs for independence and autonomy in learning.

### 2.2.2.2 Centeredness of Learning

First, technology has not only had an effect upon modern students' role of autonomy in learning, but also has brought life to their centeredness of learning. According to Muir-Herzig (2004), many studies done by Bork, Papert and Ragosta viewed computers as having an influential effect on the teaching and learning process. These studies claimed that with the introduction of computers in classrooms, "schools would become more student-centered, and more individualized learning would take place than ever before"(p.113).

A study by Teoh and Neo (2007) indicated that learning with multimedia as a learning medium fosters engagement in language learning. This engagement, according to Teoh and Neo, has encouraged students' high interests resulting from the infusion of multimedia-based learning into classrooms which is more student-centered learning approach. They also added that multimedia supports student-centered learning where learners are no longer bounded by the pace of the teachers.

Two reasons can account for the above mentioned statement on modern schools of being student-centered and having individualized learning. The first reason is the technological tools that support new students' roles. One of these new roles is being a self-learner who is responsible for his own goals, organizes his own works and manages his own time (Murchu, 2005). The second reason is that the new learners no longer follow the pace of their teachers; rather they are individually pace according to their learning abilities (Teoh and Neo, 2007).

Second, as an advantage of a student-centeredness shift in today's classrooms, Jaber (1997) asserted that within this shift and with assistance of the computer use in classrooms, students are capable of collaborating, finding alternative solutions of problems and promoting critical thinking.

Besides, Karaduman 2002 (as cited in Saba, 2009) stated that some studies found that with the advent of the use of technology in classrooms, student-centered learning leads to better performance on tests and greater retention of knowledge immediately after learning.

Finally, in a research bulletin on the role of technology of facilitating students' writing ability, Bender (2003) demonstrated that with the introduction of technological tools into classrooms, acceleration in the achievement of student-centered learning was achieved. Bender went on saying that such technological tools "drove the center of the classroom from the professor's podium to the students' desktops"(p.2). Bender also brought to light that the center of the classroom is shifted from the teacher-centeredness into a student-centeredness, and students took crucial part not only in the learning process but also in the teaching process.

### 2.2.2.3 Cooperativeness of  Learning

In addition to the positive effect of technology upon learning centeredness, it has an effect upon cooperative learning. Cooperative learning was defined as an interactive learning process mediated by learners rather than a teacher in which learners take over the traditional role of the teacher (Knight, 2009). So, what is the shape of cooperative learning in the advent of technology in the classroom? With the arrival and use of technological tools especially multimedia tools in classrooms, students were considered as cooperative learners (Slack, 1999). Murchu (2005) also found that in the course of their interaction with technological tools, students are involved with teachers in collaborative learning within authentic situations.

As Thao (2003) suggested, multimedia tools use in classrooms drove students to interact and work in pairs and groups communicatively. As to an authentic language interaction, the findings of 2003 study by Cheon demonstrated that Computer Mediated Communication (CMC) can provide Korean learners with opportunities for an authentic language interaction in the target language which is necessary to SLA.

Fuks, Gerosa, Cunha and de Lucena (2001) found in their study on students group work learning with information technology that internet could provide learning process with many advantages one of which was making students' learning a cooperative process.

Much has been found about the effectiveness of the technology introduction into the classroom. Labidi and Ferreira (2002) concluded in their study that by the marriage of cooperative learning and multimedia tools especially a computer in an effective and satisfactory way, the traditional methods of teaching/learning will be altered and beneficially and fundamentally the said learning process will be developed.

### 2.2.2.4 Motivation and Excitement for Learning

First, wide body of research has revealed the positive effect of the multimedia-based learning materials on the modern days' teaching and learning processes. Researchers like Brinton (2001) indicated that multimedia tools are a fundamental motivator in the teaching process because of its authenticity of the language input and exposure to the target culture which would lead to increase students' understanding of that culture.

According to Thao's study on the benefits of multimedia tools to assist language skills teaching, one of its findings was that all 210 students and 45 out of 50 teachers in the survey in Hanoi University of Foreign Studies expected multimedia to become the most exciting and effective teaching tools.

Teoh and Neo (2007) and Al-Bayati (unpublished) also found in their studies according to surveys, questionnaires and tests that with the use of computer technology, especially multimedia in classrooms, learning became interesting, enjoyable, engaging and increasing learners' motivation to learn.

Moreover, Meskill and Mossop (2000) found that technology use in classrooms made students more motivated and excited for learning. Also, in the 2003 study by Cheon, it was indicated that through computer mediated communication chat's sessions, students were increasingly motivated and actively participating in the CMC chats. Cheon confirmed that students were so enthusiastic over their chat production and were willingly involved in the target language. Cheon went further and considered students' motivation for learning as one of the greatest advantages of CMC. She attributed such motivation to the widespread use of chat rooms everywhere by teenagers and the authenticity of the CMC language.

Before skipping to another point, it is worth making a reference to the point raised by Meeampol and de Groot (2011) about the difference between the effect of traditional textbook based materials and technology incorporation in the modern classrooms upon learners' motivation. Meeampol and de Groot stated that unlike technology-based learning materials which have a positive influence upon learners' motivation for learning, a poor acquisition context such as traditional textbook based materials can not influence learners' motivation for learning.

In sum, based upon the aforementioned literature reviewed on the effect of multimedia on motivation and excitement for learning, an integration of technology in classrooms motivated learners to learn a second language.

## 2.3 Multimedia and Second Language Acquisition
### 2.3.1  Multimedia and Linguistic Input

Multimedia has played a positive role on enhancing and modifying linguistic input for language learning. The importance of linguistic input and its quality has been extensively addressed by Krashen's input hypothesis (1985). Krashen was one of the first to address the vital role of input in language education. He urged that learners who receive little input will not be as successful in acquiring languages as students who do receive copious amounts of input. For this reason, today's teachers have to make use of the comprehensible input brought to classrooms by multimedia. In turn, learners, who are face to face with different amount of comprehensible input, will be closer to acquiring English as a language.

Due to the importance of comprehensible input, English teachers have to take their responsibility to make their classrooms of high quality with a large quantity of comprehensible language input for the sake of bringing a much more promising atmosphere for learners to learn in an effective teaching classroom (Dong-lin, 2008). Still in many classrooms, the input is poor, and learners' capacity to acquire L2 is not satisfactory. However, technology can bring about a change in this. According to Dong-lin's claim, the advent of multimedia tools has the power to bring the outside world into a classroom where the students learn in order to cultivate a relaxing environment for EFL learning.

Also, in the 2011 study by Meeampol and de Groot, it was made clear that in order to get an authentic communication, teachers have to bridge the gap between English classroom and students' real world where they interact using technological tools such as iPads, mobile phones, etc. Meeampol and de Groot added that as students and teachers are currently familiar with technological tools, multimedia and ICT based learning materials are fitting tools in bridging the gap between learners' outside world and English classroom, and in enriching the acquisition context.

Unlike the traditional teacher-student face to face communication, technology brought a new shape of communication where the amount of the linguistic input could be better. The core aim of technology adoption in language learning is to provide learners with much exposure to the authentic language input (Chen, 2005).

Moreover, Whiting and Granoff (2010) found in their study on the effect of additional multimedia-based input such as audio and video recordings that they had a positive effect on the comprehension of short stories. They pointed out that "both audio and video inputs were attractive to readers"(p.5). Whiting and Granoff added that any kind of comprehensible multimedia input in the form of audio or video input is "beneficial"(p.6). They also made clear in their findings that the additional forms of media input which are closely related to the textbook not only increases the learners' fun but also their comprehension.

Finally, as it was always known that in the traditional classroom, the teacher is the sole source of input inside a classroom. But with the marriage of technology and education, the possible exposure to miscellaneous types of an authentic input such as video and sound erased the traditional notion of the teacher being the only available source of input inside classrooms (Poza, 2011).

### 2.3.2 Multimedia and Comprehensible Output

Much has been said over the role of multimedia tools in fostering the L2 learners' production. However, before diving into this point, it is worth making a reference to another hypothesis by Swain (1985): the Output Hypothesis. This is, according to Swain, an addition and not an alternative to Krashen's Input Hypothesis. Swain's Output Hypothesis argued that learners, who are pushed to produce linguistic output through communicative strategies or through interactional strategies are much more engaged in syntactic and grammatical processing which has a beneficial effect on language acquisition. Swain claimed that the production of output is just as important as receiving input. Swain concluded that they may not be always taking place at the same stage in learning. However, emphasis should be placed on both.

This hypothesis came as a contrary point of view to the Krashen Input Hypothesis (1985) which claimed that learners acquire language when they receive comprehensible input. But, the latter hypothesis was questionable because of the results of Swain's study on French proficiency of the immersion students. The results showed that despite much time spent on comprehensible input being received, the students' written and spoken French was full of grammatical and syntactic mistakes because they were not being pushed to produce language output.

As pointed out above, output is equally important as input in the process of language acquisition and technology can play a facilitating role in this as not all learners have equal opportunities to practice their language skills. There are several ways in which this can be introduced in class. One of these is a computer-mediated communication. In computer-mediated communication, learners have enough time to plan and check their language production; they are capable of checking and revising at any time their spelling and grammar from the available dictionaries (Pennington, 2004).Pennington concluded that learners who are afraid of committing any mistake in front of classmates, are, without any reluctance, ready to communicate via the internet.

According to Cheon (2003), a number of studies in this area claimed that computer-mediated communication fosters learners' L2 production. Moreover, Cheon added that motivation led students to participate actively in the presence of computer-mediated communication. She also found in a study that the Korean secondary school learners claimed the effectiveness of computer-mediated communication in fostering their English language production which can be developed through building learners' confidence.

Interestingly, confident learners are more willing to communicate in and output a target language. However, this is another point in language learning called Willingness to Communicate (WTC) which is the psychological readiness to use the target language at a particular time (Macintyre, 2007). Macintyre also stated in his study that in a social context, learners with enough motivation and decision-making creating the willingness to communicate might develop language learning. A study conducted by Hashimoto (2002) brought to light significant results stating that learners, who are much motivated and willing to communicate, use English as a language more frequently in a classroom.

Moreover, Poza (2011) studying computer-assisted language learning (CALL) with learners of Spanish found that students on an intermediate Spanish course claimed much effectiveness of the CALL in fostering their L2 production since such an electronic mediation provided learners with more authentic input and communication opportunities.

In the area of interaction and negotiation in SLA, Schmidt (unpublished) made a reference to some finding of a study conducted by Kern on the 40 intermediate French

students at the University of Berkeley. This study was aimed to examine the differences between traditional face to face and computer-mediated communication discussions over a period of one semester. Schmidt claimed that the production of the learners in the online discussions was greater in comparison with the production of the learners of the face to face discussions of the same topics. And even their output was "more sophisticated than in comparable face-to-face discussions" (p.13).

As compared to face-to-face discussion, Schmidt also explored that the linguistic interaction in CMC appeared to be more plentiful and exhibited higher sophistication. Moreover, interactive negotiation in CMC may provide opportunities for learners to identify gaps between their inner-language and the target language. Schmidt added that interactive negotiation for meaning in CMC affects output and modification of output.

### 2.4 Multimedia Use and Common Challenges
#### 2.4.1    Limitation of Multimedia Tools for Production Skills Development

One of the disadvantages of learning technologies, including multimedia-based learning materials, is that they cannot develop production skills including speaking. This is because, as stated by Meskill (1996), interaction is limited to machine prompts and reactions. This means, according to Meskill that a computer-based conversation consequently lacks the multiple and complex elements of human interaction that contribute to negotiated meaning and, ultimately, the development of communicative competence.

Meskill added that elements of face-to-face interaction are missing in the multimedia learning materials, hence multimedia tools could not be a good solution in acquiring production skills including speaking. As another production skill, the writing competence of learners, who were taught through one of multimedia-based learning materials, portfolios did not show any progress (Aliweh, 2011). This, to some extent, reflects the fact that multimedia tools could not be currently used to develop production skills.

#### 2.4.2 Technical Challenges

As discussed in the previous chapters, technology including multimedia tools can play a facilitating role in the process of education in general and language education in specific. However, the implementation and the actual use of this are not always left

unchallenged. First of all, in the situation of Iraq for instance, very little attention was paid to the new era of technology infusion into education. Teachers in general were not aware of recent development and unaware of the potential it can offer. This kind of lack of attention was represented by the absence of training in e-literacy and multimedia skills in Iraqi educational institutions which in turn has curbed the progress of teaching and learning processes for long time.

Therefore, in order to implement technology in Iraqi education, more emphasis should be placed on e-literacy training for Iraqi teachers and students and for increasing their potentials in multimedia skills for an improvement of the quality of education.

Unfortunately, most of the schools in Iraq lack digital classrooms where teachers and students are supposed to practice the use of multimedia tools. Also, electricity shortage in Iraq sometimes extends up to twelve hours per day, and this of course disturbs teaching and learning processes.

In addition, Muir-Herzig (2004) emphasized that the shortage in the use of fitting technological tools among students might be another reason that students' attendance and grades witnessed no improvements. This happens according to Muir-Herzig, when there is an abundance of computers and learning software, and teachers, who are supposed to guide the learning process, have minimal professional development. He concluded that in order to attain significant grades and attendance, technology should be incorporated into the curriculum in meaningful and student-centered ways.

Muir-Herzig claimed that the lack of teachers' training could be considered another barrier to teachers' use of computers. Besides, it can be said that teachers who are not proficient enough in the right use of multimedia tools to develop their lessons might unintentionally turn their lessons from a success to a failure (Thao, 2003).

Thao presented another challenge to the use of multimedia tools in classrooms which is the traditional teaching process that learners could hardly get rid of, and their involvement in the activities with the help of multimedia tools is not that much for the same reason. To teach effectively, as stated by Slack (1999), there should be sufficient computers for students, but the important issue in here is that computers are costly.

Over the complexities and challenges of integrating technology into a classroom, Capper (2003) indicated that in order to make the right use of technology integration

into a teaching process, there should be a shift in a teacher's vision on his role in basic ways. Moreover, there should be reducing in the importance of the "chalk and talk" teaching process. Capper also found that a limited access to computers and internet, and unprepared and non-qualified teachers are key barriers to the successful integration of technology into classrooms.

Capper concluded that besides teachers' reluctance to use technological tools in teaching, other reasons could be identified out in this aspect. These reasons are as follows: (1) teachers do not know how to use technological tools in classrooms, (2) some are satisfied with their traditional teacher-centeredness process, and (3) finally, as some teachers have claimed that they do not have sufficient time to run the multimedia tools to support their lessons.

Finally, according to Muir-Herzig (2004), in the absence of computer literacy training, teachers' anxieties increase and in return their attitudes toward the use of multimedia tools in classrooms will be decreased which can be considered another barrier to technology use in classrooms.

In conclusion, technology has changed everything on this globe, and touched our life style, mass media and life communication. Multimedia infusion into education has switched the roles of teachers and their students in a classroom. Within this new look of learning and with the assistance of multimedia, teachers are no longer class leaders. Learners obtained much freedom in a class as they learn at their own pace and independently. Multimedia use inside classrooms faces many challenges one of which is the traditional vision of teachers.

**Chapter 3: Methodology**

### 3.1 Experiment and Test

In order to fulfill the key purpose of this study which is the effect of multimedia-based learning materials upon the scores of the learners of the experimental group, a two-month experiment is carried out by the researcher. As a true experiment consists of control and experiment groups to which subjects have been randomly assigned (Nunan, 1992), two groups of learners, thirty subjects in each group are randomly selected from a public secondary school in the rural area of Abul Khaseeb district. According to Nunan (1992) an experiment is "a procedure for testing a hypothesis by setting up a situation in which the strength of the relationship between variables can be tested" (p.230).

Also, a test called a progress achievement test was selected from Headway Pre-Intermediate level Teacher 's Book to examine how far the scores of the learners of the experimental group was affected by the use of multimedia-based learning materials.

### 3.1.1 The Design of the Experiment
#### 3.1.1.1 Introduction

As stated earlier in this study, the aim of this study is to examine the effect of using multimedia-based learning materials on learners' scores as a result of a progress achievement test conducted at the end of the teaching period of two months. In this study and through an experiment, the researcher is keen to investigate whether the use of multimedia-based materials would bring good results or not in comparison with the textbook written materials.

This chapter manifests in front of the readers the two sources of data collection to fortify this study such as progress achievement test' scores and attitudes towards technology-based learning represented through questionnaires prepared and set for this reason. This chapter also discusses all the components of the experiment including electronic materials, textbook materials, selection of the samples, experiment context, pre-experiment stage and the construction of the test.

### 3.1.1.2 Electronic Materials

As agreed with the supervisor of this study on the electronic materials to be used in teaching the experimental group, the first five units in the Headway Pre- Intermediate CD-ROM are selected to teach the learners of the experimental group. Learners of the experimental group are to be exposed to the electronic input for 32 hours through two months. The researcher also seeks the readiness of his learners to move from one step of learning to another through guiding and instructing them in each portion of the lesson, as stated in the first class lesson plan, see an appendix (A).

### 3.1.1.3 Written Textbooks

Headways Pre-Intermediate textbooks are used to teach the control group. The researcher in advance and before the start of the teaching period on Oct.1$^{st}$, 2011 makes available of 30 original copies of the said textbooks, and are to be distributed among the learners of the CG.

The control group takes the same amount of hours as the experimental group (32 hours for 2 months; 16 hours per month; 4 hours per week for each group). However the key difference in teaching the two groups lies in the fact that the control group studies through using the written textbooks unlike the experimental group mentioned above.

### 3.1.1.4 Selection of the Subjects

The subjects for this experiment represent sixty learners studying in the fifth class of public secondary school for the academic year 2011-2012. The researcher has to assure that none of the subjects has already studied English using multimedia-based learning materials. Their age average ranges between 16 and 17. They are all Iraqis and native speakers of Arabic. None has had any extra course in English or any other foreign language. This sample is randomly split into two groups, a Control Group CG, and an Experimental Group EG, thirty subjects for each, and all of them are male learners.

The main reason behind the selection of this secondary school is that this one has a laboratory in this rural area equipped with new computers which are not used yet. Another reason behind such selection is that students of such a rural area have not had

a chance yet to use such integration of technology into classrooms due to many reasons one of which is the lack of qualified teachers to run such a lab and computers.

One group of 30 students was selected as an experimental group EG which receives experimental treatment, and the other was the control group which does not receive experimental treatment. Moreover, the researcher takes into consideration that all the students in the two groups are of age not exceeding the normal age of a fifth-class secondary school student which is 16-17, and if any has above this age, the researcher has to exclude him to protect his study.

Besides, in order to control for extraneous variables (Brown, 1988), the following measures have been take. First of all, the prior language experience has been controlled such as learners' background in English or their stay over a period of time abroad in some English dominated societies (which is considered as an irrelevant variable) e.g. U.S.A, UK, Australia, etc.. Second, the researcher has to conduct an interview with all subjects in the experimental group, and excludes those who have such background. Finally, as to the effect of moderator variable (sex difference, male or female), there are no worries over this matter since all subjects are students at a secondary school for boys.

### 3.1.1.5 Experiment Context

The group under the experiment and the control group are to be placed and taught in two separate classrooms each of which is suitable for the learners of the two groups. The two classrooms are checked well before the day of the experiment to make sure that all requirements to get success are met including stable electricity. For emergency case, an electricity generator is made stand by. It is worth mentioning that all the learners in both groups CG & EG are male coming from the middle class families.

The experiment activities covered a two-month period from Oct.1$^{st}$, 2011 to Dec. 4$^{th}$, 2011. Abul Khaseeb Secondary School for Boys was founded in 1971, and located in a rural district called Abul Khaseeb. This school, as other schools in this area, has suffered from negligence for long time lasted more than two decades due to the instable economy and politics in Iraq.

### 3.1.1.6 Pre-Experiment Stage

It is of high importance to take into consideration that the students should be given at least a one hour-class e-literacy training on how to run the computers for the purpose of giving students a big chance to be familiar with computer parts. Some might not be aware of how to use the mouse or keyboard keys or how to go page up or down. That is why the researcher does believe it is a big risk to start the study without such prerequisite e-literacy training. Therefore, EG students took a one-hour e-literacy training course on Oct.1st, 2011.

### 3.1.1.7 Instructions

Teaching of the two groups has begun on the 1st of Oct., 2011 as agreed upon with the Abul Khaseeb Education Directorate and the administration of the assigned secondary school. It is worth mentioning here that the researcher of this study is the teacher of the two groups who has determined on preparing a lesson plan for every class which according to Billows (1961) must have its root in the preceding lesson and its branches and flowers in the succeeding lessons.

Teaching of the two groups takes different techniques as the control group is taught with the use of traditional textbook, and the experiment group is taught with the assistance of multimedia-based learning materials. In other words, the two groups are exposed to different types of input along two months; four classes per week for each, sixteen classes per month and thirty two classes along the whole period of the experiment.

As far as the control group is concerned, the instructions are the first five units in the Headway Pre-Intermediate, Student's Book, on which the test in turn is based. It is called a progress achievement test. As to the experimental group, the first five units in Headway Pre-Intermediate CD-ROM are assigned to teach this group. The experiment lasts for two months. It is completed on the 4th of Dec., 2011.

### 3.1.1.8 Challenges to the Experiment Implementation

It is significant and recommended to make a reference to some pitfalls might appear in this study. For example, some learners of the assigned public secondary school in Basra in the experimental group might not be capable of running a computer or not

familiar with its parts e.g., mouse. This pitfall will affect to some extent this study. Also, time restraint, which if not well organized, will affect the study as well. Some technical defects might appear during the course of this study, which if occurred, the rapid action should be taken by the researcher e.g., as the learner is to move and share another learner in a computer for the purpose of normal flow of activities.

### 3.1.2   Test

After the completion of the two-month experiment, the two groups; control and experimental groups are face to face with the progress achievement test which is already available in the Headway Pre-Intermediate Teacher's Book. The students are provided with answer sheets to write down their responses. It is worth mentioning that one of the said school English teachers has assisted the researcher in the administration of the test. Both the researcher and the school permanent English teacher explain the test instructions to both groups, but the correction and analysis of the responses of the two groups' subjects are done by the researcher himself.

### 3.1.2.1 Test Construction

At the end of a two-month period devoted to teaching the CG and EG, the learners are ready to take the written progress achievement test which is, as stated by Hughes (1989) intended to measure the progress the students are making. It is supposed to measure the subjects' achievement. The said test is already made available in the Headway Pre-Intermediate Teacher's Book called "Progress Test 1".

### 3.1.2.2 Test Administration

In order to attain the best results in the test which is supposed to be reliable and valid, the researcher, who is also the examiner of the learners, makes sure that every candidate should be given full instruction (where to go, at what time, what to bring and what they should do if they arrive late (Hughes, 1989). He also states that there should be an examination number for each candidate. Hughes (1989) adds that exam rooms should be quiet and large enough to accommodate comfortably the intended number of candidates, and finally there should be sufficient space between candidates to prevent copying.

### 3.2    A Questionnaire

As another source of data collection to support this study is the 30 copies of the questionnaire to be distributed among the experimental group's students to know their attitudes toward using multimedia-based learning materials in language learning. A questionnaire as  defined by Nunan (1992) is "an instrument for the collection of data, usually in written form consisting of open and/or closed questions and other probes requiring a response from subjects" (p.231).

The present study questionnaire contains four categories of questions to be answered by the students, each of which includes five questions, see an appendix (B). The total questions of the questionnaire are 20 questions answering the questions on e- literacy skills, attitudes towards using Information Computer Technology (ICT) based media in English language learning in the future, attitudes towards using multimedia-based learning materials in language learning and finally incorporation of teaching techniques into multimedia-based learning materials.

The students who spare about 10 minutes to fill out the questionnaire are informed in advance that the data collected would be used for academic purposes only. The questionnaires which are filled out and returned to the teacher will be analyzed using a Likert scales 1-5 point.

### 3.3.1 Piloting the Questionnaire

As it is imperative to pilot any questionnaire (Nunan, 1992), the researcher takes into account the significance of conducting this essential step through asking three students to answer this questionnaire. Moreover, the twenty questions are translated into Arabic. The main reason behind such steps is to make sure that the questionnaire is understandable by the subjects and suitable for their level. Besides, another reason behind such steps is to make sure that no complaints are raised from the students over the content of the questionnaire. If nothing disturbing the learners, it is time to go ahead and distribute the questionnaire among them to get responses.

**Chapter 4: Data Analysis & Result Discussion**

### 4.1 Introduction

This chapter deals with the results of the study on multimedia-based learning materials which were collected from two channels, one is a progress test and the second is questionnaires. The purpose of this study is to investigate whether multimedia-based learning materials in English language education have a positive effect on students' language achievement or not. This chapter is divided into two parts. The first part presents the results of the achievement test, and the second part presents the results derived from the questionnaire.

### 4.2 Test Scores

To answer one of the two research questions about whether multimedia-based learning materials have any effect on English language learning, and is this reflected in the students' scores in an achievement test, an Independent Samples T Test was carried out to investigate whether there is a significant difference between the means of the Experiment Group EG and the Control Group CG.

This research has two variables which have been operationalized. One of the variables is teaching technique used in the classroom as an independent variable. It is of two levels, and the achievement test is another variable as dependent. As to the teaching techniques used in classrooms, two different teaching techniques were used in the two different settings including multimedia-based learning materials assigned for the EG in the digital classroom and the traditional textbook assigned for the CG. The sole construct in this study is English language proficiency development. English Language Proficiency Development of the learners can be measured through the achievement test's scores.

Table 4.1: Descriptive statistics / Mean & Std. Deviation of the eight questions for EG & CG

| Q # | Language Focus | Maximum score | EG | | CG | |
| --- | --- | --- | --- | --- | --- | --- |
| | | | Mean | Std. Deviation | Mean | Std. Deviation |
| Q.0 | | 100 | 63.37* | 10.354 | 55.97 | 11.236 |

| Q.1 | Parts of Speech | 12 | 6.20* | 2.929 | 4.53 | 2.849 |
|-----|-----------------|-----|--------|-------|-------|-------|
| Q.2 | Word Order in Question Formation | 18 | 10.27 | 2.852 | 13.10 | 2.695 |
| Q.3 | Reading Comprehension | 14 | 9.93 | 2.449 | 9.90 | 2.537 |
| Q.4 | Count & Uncount Nouns | 10 | 8.60* | 1.163 | 7.80 | 1.690 |
| Q.5 | Simple Grammar with Irregular Verbs | 10 | 5.17 | 2.479 | 4.83 | 2.321 |
| Q.6 | Definite & Indefinite Articles | 10 | 3.00 | 2.244 | 3.07 | 1.741 |
| Q.7 | Collocations | 10 | 7.23* | 2.932 | 2.90 | 1.918 |
| Q.8 | Grammar Judgment | 16 | 13.00* | 2.213 | 9.40 | 2.686 |

*Significant at 0.05 level

As table 4.1 shows above, the mean of the EG (63.37) is higher than the mean of the CG (55.97), which indicates that the students of the experimental group EG did significantly better than the control group CG. However, the two groups improved, but learners of the EG who learnt in the digital classroom did better.

Also, as can be seen from the same table, the EG has a smaller Standard Deviation (SD) (10.352) than the CG (11.236). In other words, the EG scores are less dispersed around the mean. Also it can be assumed that more variation took place with the achievement scores of the CG. In general, the results of T Test showed that there was a significant difference between the two groups' means scores as shown in table 4.1 on the Mean and Standard Deviation for the both groups.

This statement that the scores of the EG students are significantly higher than those in the CG allows us to look for more specific data raised from the said test. It's worth diving deeply into the data of all eight questions to analyze how the two groups did in the progress test. A p value < .05 indicates that the difference in mean scores of the two groups is most likely to be due to multimedia-based learning materials, not to chance. Thus, $H_0$ is rejected and it is concluded that there is a significant relationship between multimedia-based learning materials and the EG students' high scores.

Table 4.2: T score indicates a significant difference between the two groups' means.

**Independent Samples Test**

| | | t | df | Sig. (2-tailed) | Mean Difference | Std. Error Difference |
|---|---|---|---|---|---|---|
| | | | | t-test for Equality of Means | | |
| score | Equal variances assumed | 2.653 | 58 | .010 | 7.400 | 2.790 |
| | Equal variances not assumed | 2.653 | 57.956 | .010 | 7.400 | 2.790 |

T (58, 2.653) p <0.05

Due to the main effect found in the analysis on the relationship between teaching methodologies used in two different settings and achievement scores, it is justified to look in details for more analysis.

As shown in table 4.1 the Independent Samples T Test for the relationship between multimedia-based learning materials and students' language achievement scores yielded significant results for 4 of the 8 items.

As shown below in table 4.3, the students did well in answering questions no.1, 4, 7 & 8, and got higher scores than CG students. It means that there is a significant difference between the two groups.

Table 4.3: T scores for the questions 1, 4, 7 & 8 showing a significant difference in the performance of the two groups.

| Q.# | T Score |
|---|---|
| 1 | t(58,2.234) p <0.05 |
| 4 | t(58,2.136) p <0.05 |
| 7 | t(58,6.774) p <0.05 |
| 8 | T(58,5.666) p <0.05 |

In questions no.3, 5 & 6, as shown below in table 4.4, it is clear that there was no significant difference between the two groups. The reason behind this might be that the two groups were not familiar with such questions; therefore the two groups'

students including those who were learning through multimedia-based learning materials found these questions very difficult.

Table 4.4: T scores for the questions 3, 5 & 6 showing no difference in the performance of the two groups.

| Q.# | T Score |
|-----|---------|
| 3 | t(58,.052) p > 0.05 |
| 5 | t(58,.538) p > 0.05 |
| 6 | t(58,-.129) p > 0.05 |

On the contrary, the case with question no.2 is different where the CG students did slightly better than the EG students. T (58,-3.955) p < 0.05.This might be happened because that the students of the CG had intensive practice with the textbook in the class rather than the multimedia-based learning materials.

### 4.3 Questionnaire Results

To answer other research question about whether EG students favor the use of multimedia-based teaching materials over traditional textbooks based materials, 30 copies of the questionnaire distributed to 30 EG students. They were administered by the teacher, and distributed to the EG 30 students in the digital classroom. In total, all the 30 copies of the questionnaire were filled out as none of the EG students was absent, and all the 20 questions were answered which means that the response rate was 100% of questions.

For yielding good results, students were informed by the researcher of this study to keep their names anonymous; hence they would not be embarrassed and would express their attitudes in an uninhibited manner.

The questionnaire's questions were put into four categories as follows. The first category was on e-literacy skills, the second was on attitudes towards multimedia-based learning materials in language learning, the third was on attitudes toward the use of ICT media in English language learning in the future, and the last one was on teaching techniques and multimedia-based learning materials.

A Likert scale (1-5) was used to measure students' attitudes to twenty questions included in the four different categories mentioned above.

Table 4.5: Attitudes of EG students toward multimedia-based learning materials, and the mean and standard deviation of each question was shown.

| Attitudes toward multimedia-based learning materials | Mean | Std.Deviation |
|---|---|---|
| **E.Literacy Skills** | 4.12 | .874 |
| I can carry out basic operations in Windows. | 4.43 | .504 |
| I use a computer to do my homework. | 3.63 | 1.098 |
| I use a computer to prepare my school presentations. | 4.23 | .728 |
| I feel satisfied with my capacities in running computer learning software. | 4.30 | .535 |
| I have attempted to use computer technologies, but I still require help on a regular basis. | 4.00 | 1.114 |
| **Attitudes toward using multimedia-based learning materials in language learning:** | 4.27 | .476 |
| I liked using the multimedia-based learning materials in class. | 4.17 | .379 |
| I believe I learned more than with a normal textbook only. | 4.30 | .535 |
| I felt comfortable using the multimedia-based learning materials. | 4.23 | .504 |
| I found that the use of multimedia-based learning materials give me much space of freedom in learning than learning with a normal textbook only. | 4.33 | .479 |
| I feel motivated and more involved in classroom activities with multimedia-based learning materials. | 4.33 | .479 |
| **Attitudes toward using ICT media in English language learning in the future**. | 4.31 | 1.265 |
| In the future I want to use more ICT based learning materials. | 4.27 | .521 |
| I believe ICT based materials would also help me in other subjects. | 4.50 | .509 |

| | | |
|---|---|---|
| I have no concerns about the use of ICT in classroom in the future. | 4.37 | 1.033 |
| I am so optimistic about the use of ICT in classroom in the future. | 4.13 | .507 |
| The use of ICT in classroom will be increasingly appreciated by the new generations. | 4.43 | .504 |
| **Teaching techniques & multimedia-based learning materials** | 4.27 | .490 |
| Teaching techniques included in multimedia-based learning materials increase my achievements. | 4.30 | .466 |
| The infusion of teaching techniques into multimedia-based learning materials makes me more confident. | 4.40 | .563 |
| Teaching techniques used in multimedia-based learning materials help me communicate with other students more efficiently. | 4.13 | .434 |
| Teaching techniques made available for multimedia-based learning materials  raise my motivation. | 4.23 | .504 |
| Teaching techniques included in multimedia-based learning materials expedite my language comprehension and production. | 4.30 | .466 |

In general and as shown above in table 4.5, the highest mean ratings on a scale of 1-5 displayed that there was a positive attitude towards multimedia-based learning materials in classes.

This claim allows us to analyze each category of the questionnaire to reach learners' specific attitudes for the five questions of each category.

First, when measuring the learners' e-literacy skills, the response showed that the mean rating was 4.12 and indicates that learners had sufficient e-literacy skills as they could carry out basic operations in Windows, could occasionally do their homework and prepare school presentation by computers, and finally they feel satisfied in running computer learning software.

Second, when measuring learners' attitudes toward using multimedia-based learning materials, the response showed that the mean rating was 4.27 and indicated that

learners had positive attitudes toward multimedia-based learning materials. They liked using multimedia-based learning materials in their classes and believed that they learnt more than with the normal textbook. They also felt comfortable with multimedia-based learning materials, and found that such materials give them much space of freedom in learning. Finally they felt motivated and more engaged in class activities with multimedia-based learning materials.

Third, attitudes toward using multimedia-based learning materials in English language learning in the future displayed, as indicated by the mean rating of the said category 4.36, that learners have positive attitudes toward multimedia-based learning materials in English language learning. Learners stated in their responses that they want to use more multimedia-based learning materials in the future, and believe that multimedia materials would help them in other subjects. Responses also showed that learners are very optimistic and have no concerns about the use of multimedia materials in classroom in the future. Besides, responses pinpointed that the use of multimedia-based learning materials will be increasingly appreciated by the new generations.

Finally, as the overall mean of last category was 4.27 which indicated that learners have a positive attitude toward teaching techniques included in multimedia-based learning materials. The responses stated that teaching techniques included in multimedia-based learning materials increased their achievements, made them more confident, raised their motivation, expedited their language comprehension and production, and finally helped them communicate with other students more efficiently.

**4.4 Data Result Discussion**

**4.4.1　Introduction**

This study attempted to seek whether students favor the use of multimedia-based teaching materials over traditional textbooks based materials**,** and whether multimedia-based materials have any effect on teaching, and whether this is reflected in the students' scores in an achievement test. Results show that students significantly favored the use of multimedia-based learning materials over traditional textbooks. Results also showed that multimedia-based learning materials had a positive effect on the language achievement as reflected in the students' scores on an achievement test.

**4.4.2 Teaching Methodologies**

As can be seen from the results of this study, the EG who was assigned to learn with the aid of multimedia-based learning materials did better than the CG. This indicates that the methods used in teaching EG positively affected the achievement of this group rather than the CG.

First, as stated above, the EG students did equally different in answering questions no.1, 4, 7 & 8, where the language focus respectively was on parts of speech, count and uncount nouns, collocation and grammar judgment, and got higher scores than CG students. It indicates that multimedia-based learning materials have a significant effect upon students' score in the progress test.

This result suggests that multimedia-based learning materials used in teaching the EG enrich the acquisition context inside the digital class and are appropriate tools in bridging the gap between learners' outside world and English classroom. This study finding is in line with Meampol and de Groot (2011) claim on authentic communication necessary for language acquisition in a real acquisition context.

However, in questions no.3, 5 & 6, where the focus of language respectively was on reading comprehension, simple grammar with irregular verbs and definite and indefinite articles as shown above there was no significant difference between the two groups. The reason behind this might be that the two groups were not familiar with this kind of questions, therefore the two groups found these questions much difficult. Alternatively, it could be the case that both the textbook and multimedia-based materials provide similar exposure to language or that it is a new topic. Or it could be

that students in the two groups had equal opportunities for practice, hence the similar achievement. In other words, multimedia-based learning materials could not make a significant difference between the two groups.

On the contrary, the case with question no.2, where the focus of language was on word order in question formation, is different .The CG students did slightly better than the EG students. This might be the case because students of the CG had intensive practice with the textbook in the class rather than the multimedia-based learning materials.

Second, this present study found that EG learners who learnt in the digital classroom using multimedia-based learning materials did better than the CG students. This can be described in the fact that EG students had an opportunity to learn at their own pace. They held responsibility for their own learning. In other words, it means that EG learners go slower with some difficult topics and faster with easier ones. A similar finding has been observed by Wilson et al. (2003) in their study which indicated that students reported that electronic portfolios they used in their learning provided them with the power of bearing responsible for their learning and independency.

Also, an observation made by the teacher, as mentioned in the teaching journal, indicated that students were free and made their own choices about learning techniques inside the digital classroom according to their interest and needs. The teacher understands their needs and responds to their interests and agreed with them on the learning techniques to be used in the digital classroom. However, this study finding agrees with Barnes et al. (2007) on the point that today's learners tend to make their own choices about learning techniques appropriate to their desire and needs.

Moreover, as reported by the teacher in the teaching journal, see an appendix (F), learners were pleased and productive in their work as pairs in learning; therefore the teacher took this advantage and encouraged students to learn through this learning technique. This indicates that multimedia-based learning materials drove learners to interact and work in pairs and groups communicatively. A similar finding has been observed by Thao (2003).

Next, shy students, who were afraid of committing any mistake in front of their classmates, showed their readiness to communicate. As reported by the teacher in the

teaching journal, even students who were marked as troublesome in other classes were easily engaged in the class. This described students' interest in learning with multimedia-based learning materials which is in line with claim of Pennington (2004) about shy students' readiness to participate in the digital classroom.

Besides, EG learners were developing in acquiring English as a second language as they did better than the CG students in the achievement test. This indicates that students of the EG were face to face with more interactive and engaging input brought to them by multimedia-based learning materials. On the contrary students of the CG were face to face with less interactive input inside the classroom as they were learning with the traditional textbooks. This is in line with Krashen's Input Hypothesis which stresses the need for sufficient and comprehensible input as one of the factors facilitating SLA.

As mentioned in the teaching journal, the teacher observed that students were enjoying English language learning inside the digital classroom. This suggests that the language learning through multimedia-based learning materials became more effective when it is fun and enjoyable. A similar finding has been observed by Teoh and Neo (2007) and Al-Bayati (unpublished).

In conclusion, judging the comments made by students during and after the experiment as mentioned in the teaching journal, EG students prefer the use of multimedia-based learning materials to traditional textbooks. As an example, shy students, as they told the researcher, felt no embarrassment while they were learning English and multimedia made them enthusiastic to learn. Students also expressed their ultimate desire to see their permanent teachers use multimedia in classrooms. They asked the researcher of this experiment to talk with their teacher to shift his technique of teaching, and to teach them using multimedia-based learning materials.

All in all, it is highly likely that the two groups have improved but that the EG has improved more than CG. However, the general level of scores of the achievement test reflects the improvement the two groups attained through a period of two month teaching. Even the scores of the CG has not reflected the average level of Iraqi student, but showed an advanced level of students being taught differently.

### 4.4.3 Attitudes and Motivation

From surveying all EG learners, who were taught by multimedia-based learning materials, it appears that learners have a positive attitude and motivation toward multimedia-based learning materials.

The highest ratings in motivation questions referred to having e-literacy skills necessary to run learning software, having no concerns about the use of multimedia materials in classroom in the future, teaching techniques included in multimedia-based learning materials increasing their achievements, making them confident and finally feeling motivated and more involved in classroom activities with multimedia-based learning materials. This could have positively contributed to the effectiveness of their learning experience.

As reported by the teacher, see an appendix (F), students of the EG were asking to have extra time inside the digital classroom to include the break. And students were rushing to ask their teacher whenever they have a vacant class or another class teacher did not show up.

This indicates that they were strongly motivated to learn through multimedia-based learning materials. This finding supports Brinton's claim (2001) that multimedia tools are a main motivator in the teaching process because of its authenticity of the language input and exposure to the target culture which in return will increase learners' understanding of a language culture.

Finally, according to the school's records, EG students committed zero absentees and their attendance was regular in comparison with the other group. On the contrary CG students who learnt by the traditional textbook were often absent. This shows that EG students were regular in their attendance due to the fact that they were motivated by the use of multimedia-based learning materials in the digital classroom. However, this finding contradicts Muir-Herzig's (2004) study which found that students' attendance witnessed no improvement.

**Chapter 5: Conclusion**

### 5.1 General Conclusion

This research set out to examine whether students favor the use of multimedia-based teaching materials over traditional textbooks based materials and whether multimedia-based learning materials have any effect on teaching, and whether this is reflected in the students' scores in an achievement test.

The results confirm the research hypotheses in that results yielded from the data analysis set showed that students favored the use of multimedia-based learning materials in classrooms over traditional textbooks. Multimedia-based learning materials had an effect on the teaching process and it was reflected in students' scores in an achievement test.

However, EG students did well and got higher scores than students of the CG. This indicates that multimedia-based learning materials helped students in their English language achievement in the digital classroom.

Also, data resulted from the progress test (criterion-based test) displayed that multimedia-based learning materials increased students' potentials in acquiring the L2 and comprehension. In other words, the EG students improved much more. In the same regard, data resulted from the motivation questionnaire indicated that students have a significantly positive attitude toward multimedia-based learning materials.

### 5.2 Limitations

This thesis is not without its limitations, which need to be discussed. First, the paper-based final test (an achievement test) could not compare the motivation of the two groups. Therefore it yielded only a limited amount of data on their attitude and motivation toward multimedia-based learning materials, especially from the EG students. As stated by Olson, Verley, Santos and Salas (2004), the Hawthorne effect could influence the results. The novelty of multimedia-based learning materials, environmental factors and enthusiasm of the teacher could have an effect to the extent that these variables are not controlled. The impact of the effect cannot be estimated nor whether it has exceeded the educational value of the project.

The researcher also acknowledges that the small size of the group of students is another limitation of this study. More students would have been advantageous to attain more adequate interpretation of the results. Another limitation is that the time constraint. A period of two-months is not enough. The study would have benefited from being conducted over a long period of time. Unfortunately the experiment timing was shortened for logistical reasons. Finally, because of time constraints, only the first five chapters of the Headway Pre-Intermediate software were taught. This can be considered another limitation of this study without which the results would be advantageous and different.

### 5.3 Future Research

This study was an initial attempt to seek how multimedia-based learning materials affect learners' scores in the achievement test in Iraq. However future research should study the effectiveness of using multimedia-based learning materials in teaching different language functions necessary to improve learners' language learning.

As the study of multimedia-based learning materials is relatively recent and ongoing in Iraq, more researches and studies are requested to investigate this subtle and mature field. This can be investigated not only on the level of secondary schools; it can be extended to include intermediate and primary schools with different foci.

Another area of interest might be to include all the governmental schools in a certain area, at least of the secondary level, in the same study. This might benefit the educational system in this area from the additional depth of a further investigation and the possibility of generalizing results.

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**Appendices**

**Appendix (A): 1st Class Lesson Plan**

<table>
<tr>
<td colspan="4" align="center"><strong>1st Class Lesson Plan</strong></td>
</tr>
<tr>
<td colspan="4">Teacher: Ahmed Falih</td>
</tr>
<tr>
<td>Context:<br> Getting to know you.</td>
<td>Level: 5th Class Secondary School</td>
<td>Duration: 45 min</td>
<td rowspan="2">Learning objectives:<br><br>➢ Students are to be familiar with the Present Simple, Past Simple, Continuous and the Future tenses through a CD-ROM use in a computer for good communication.<br><br>➢ Students are to be good learners of tenses through the use of a CD-ROM in a computer.</td>
</tr>
<tr>
<td colspan="3">Aims:<br>Students are to communicate using the correct tense to get to know each other.<br><br><br>Materials: A CD-ROM-based materials on tenses.</td>
</tr>
<tr>
<td><strong>Timing:</strong></td>
<td><strong>Teacher does:</strong></td>
<td><strong>Students do:</strong></td>
<td><strong>Expected problems:</strong></td>
</tr>
<tr>
<td>Warmer<br>(10 min )</td>
<td>Tell the students about the aim of a CD-ROM in learning tenses to get to know each other.<br><br>Make sure that all students successfully run their computers, and are ready to work on the already installed and assigned CD ROM based materials over tenses.</td>
<td>Listen to their teacher.<br><br><br>Run their computers, examine screens and ready to start working on the assigned materials.</td>
<td>_____<br><br><br>Some students will face some difficulties in running their computers or the assigned CD-ROM materials.</td>
</tr>
<tr>
<td>10 min</td>
<td>Guide students to read the examples on tenses made available at the left side of the screen (click reference icon).<br><br>The teacher goes around students while they work on examples / sentences guiding them and</td>
<td>Read examples, and the compuetr reads these examples aloud by the speaker (click on the listen icon).<br><br>Students individually or in pairs keep working on the examples and ask questions when in</td>
<td>Some students might face difficulty in using icons.<br><br><br>Some students might feel shy or reluctant to ask questions while they are in real need to some explanation.</td>
</tr>
</table>

| | | | |
|---|---|---|---|
| | helping them when needed. | need. | |
| 10 min | Guides students to work on their computers' screen filling in the blanks in a paragraph with the correct tense from a list made available above in the screen. | Fill in blanks with the correct tense individually or in pairs. | Some students will face difficulty in selecting the correct tense. |
| | As going around students, the teacher helps the students to do the exercise and explain the complex point in each sentence when needed. | Do the exercise again through clicking on another picture which tells another story to be filled in. (two pictures above in the screen). | |
| 10 min | Guide them to check their answers through clicking on "check" icon made available in the left bottom of the screen. | Work on clicking on the "check" icon to examine the right and wrong answers they made, and then to correct their work individually or in pairs. The correct and wrong answers will be shown on the screen and through tones. | Some students might face difficulty in this regard. |
| 10 min | Guide them to listen to the full paragraph(s) after being filled in and corrected through clicking on the "listen" icon. | Click "listen" icon on the left bottom of the screen to listen aloud to the full paragraph(s) after being filled in. | Some students might face difficulty in hearing due to technical reasons. |

**Appendix (B): A Student Questionnaire**



# A Student Questionnaire

**The Use of Multimedia-based Learning Materials in English Language Teaching in Developing Educational Systems**

I am an Iraqi student studying Master of Education / TESOL Program at Asian University, Kingdom of Thailand. The purpose of this questionnaire is to collect data for my M.Ed thesis and the topic is as above. This questionnaire is to be filled out by students of the experimental group in a public secondary school. The data collected will be used for academic purposes only. I would very much appreciate if you could spare about 10 minutes of your valuable time to fill out this 20-question questionnaire.

*Thank you in advance for your participation.*

**Age: -----------------------**

**Grade: --------------------**

**Date: ----------------------**

1. I can carry out basic operations in Windows.

استطيع اجراء العمليات الاساسية في نظام الوندوز.

◯     ◯     ◯     ◯     ◯
Strongly Disagree   Disagree   Neutral   Strongly Agree   Agree

2. I use a computer to do my homework.

استخد م الكمبيوتر لانجاز واجباتي البيتية.

◯     ◯     ◯     ◯     ◯
Strongly Disagree   Disagree   Neutral   Strongly Agree   Agree

3. I use a computer to prepare my school presentations.

أستطيع تحضير عروضي المدرسية باستخدام الكمبيوتر.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

4. I feel satisfied with my capacities in running computer learning software.

اشعر بالقناعة في امكانياتي في استخدام الكمبيوتر في برامجيات التعلم.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

5. I have attempted to use computer technologies, but I still require help on a regular basis.

حاولت استخدام تقنيات الكمبيوتر ولكني مازلت بحاجة للمساعدة في الاساسيات.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

6. I liked using the multimedia-based learning materials in class.

احببت  التعلم المبني على الوسائط المتعددة (الكمبيوتر) في الصف.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

7. I believe I learned more than with a normal textbook only.

اعتقد بأني تعلمت اكثر بأستخدام الكمبيوتر مقارنة بما تعلمته سابقاً بالطريقة التقليدية.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

8. I felt comfortable using the multimedia-based learning materials.

شعرت بالارتياح باستخدام الوسائط المتعددة في التعلم.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

9. I found that the use of multimedia-based learning materials give me much space of freedom in learning than learning with a normal textbook only.

لقد وجدتُ بأن استخدام الوسائط المتعددة في التعلم قد منحتني حرية واسعة في التعلم مقارنة بالكتاب التقليدي.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

10. I feel motivated and more involved in classroom activities with multimedia-based learning materials.

اشعر بأني اكثر فعالية وتحمسا للتعلم في الصف باستخدام الوسائط المتعددة.

○      ○      ○      ○      ○

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

11. In the future I want to use more ICT based learning materials.

ارغب بأستخدام مواد التعلم المبنية على تكنلوجيا المعلومات في المستقبل.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

12. I believe ICT based materials would also help me in other subjects

أعتقد بأن المواد المبنية على تكنلوجيا المعلومات ستساعدني في الواد الدراسية الأخرى.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

13. I have some concern about the use of ICT in classroom in the future.

لدي بعض القلق حول أستخدام تكنلوجبا المعلومات والأتصالأت في الصف في المستقبل.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

14. I am so optimistic about the use of ICT in classroom in the future.

اني متفائل حول أستخدام تكنلوجبا المعلومات والأتصالأت في الصف في المستقبل.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

15. The use of ICT in classroom will be increasingly appreciated by the new generations.

أن استخدام تكنلوجبا المعلومات والاتصالات سيلقى استحسانا وبشكل متزايد من قبل الأجيال القادمة.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

16. Teaching techniques included in multimedia-based learning materials increase my achievements.

تزيد طرائق التدريس المستخدمة في مواد التعلم المبنية على الوسائط المتعددة من انجازاتي.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

17. The infusion of teaching techniques into multimedia-based learning materials makes me more confident.

أن استخدام طرائق التدريس في مواد التعلم المبنية على الوسائط المتعددة يجعلني أكثر ثقة في التعلم.

Strongly Disagree    Disagree    Neutral    Strongly Agree    Agree

18. Teaching techniques used in multimedia-based learning materials help me communicate with other students more efficiently.

أن استخدام طرائق التدريس في مواد التعلم المبنية على الوسائط المتعددة يساعدني في التواصل مع الطلاب الآخرين و بصورة فعالة.

Strongly Disagree    Disagree   Neutral    Strongly Agree    Agree

19. Teaching techniques made available for multimedia-based learning materials raise my motivation.

تزيد طرائق التدريس المتوفرة لمواد التعلم المبنية على السائط المتعددة من أهتمامي.

Strongly Disagree    Disagree   Neutral    Strongly Agree    Agree

20. Teaching techniques included in multimedia-based learning materials expedite my language comprehension and production.

أن استخدام طرائق التدريس في مواد التعلم المبنية على الوسائط المتعددة تسرع من استيعابي وتقديمي للغة.

Strongly Disagree    Disagree   Neutral    Strongly Agree    Agree

**Appendix (C): Headway Pre-Intermediate written materials (the first five units assigned to the CG)**

The first five units of Headway Pre-Intermediate textbooks are selected for the purpose of teaching the CG students of the Abu-Al-Khaseeb Fifth Class Secondary School in Basra city. The materials are as follows:

**CONTENTS**

**UNIT 1 / Getting to know you** p6

**Grammar**

Tenses, present, past, future …….. P6-8

**Questions**

Where were you born? ……. p6-8

What do you do?

**Questions words**

Who……? Why…….? How much…..? p7

**Vocabulary**
Using a bilingual dictionary …p9

Parts of speech, adjective, preposition……p9

Words with more than one meaning

A book to read

I booked a table. …. P9

**Everyday English**

Social expressions 1

Have a good weekend!

Same to you…..p13

**Reading**

'People, the great communicators'-the many ways we communicate ….. p11

**Speaking**

Information gap - Joy Darling …..p9

Discussion – who are you ideal neighbors? …. P12

Role-play – exchanging information about two neighbors …… p12

**Listening**

Neighbors – Steve and Mrs. Snell talk about each other as neighbors (jigsaw) …..p12

**Writing** (in the workbook)

Informal letters

A letter to a penfriend WB …….p9

**UNIT 2**

The way we live …..p14

**Grammar**

Present tenses:

Present simple

Most people live in the south. …. p 14

Present continuous

What is he doing at the moment? ……. P16

Have / have got

We have a population of ------------- p15

Have you got a mobile phone? ……….. p16

**Vocabulary**

Describe countries

A beautiful country

The coast

The country exports wool. ….. p14

Collocation

Daily life

Listen to music, talk to my friends. ………. p17

**Everyday English**

Making conversation, asking questions and showing that you are interested. …….p21

**Reading**

Living in the USA – three people talk about their experiences. (Jigsaw)  p18

**Speaking**

Information gap – people's lifestyles   p 16

Exchange information about immigrants to the USA p18

**Listening**

'You drive me mad (but I love you)!-what annoys you about the people in your life? p20

**Writing**

Linking words: but, however WB p14

Describing a person WB p15

**UNIT 3 / It all went wrong** p22

**Grammar**

Past tenses / Past Simple (He heard a noise. What did you do last night? ) p23

Past Continuous (A car was waiting.) p24

**Vocabulary**

Irregular verbs (saw, went, told) p23

Making connections: break/mend, lose/find p23

Nouns, verbs and adjectives

Suffixes to make different parts of speech: discuss – discussion p28

Making negatives: pack – unpack p 28

**Everyday English**

Time expressions: the eighth of January, at six o'clock, on Saturday, in 1995 p29

**Reading**

'The burglars' friend' p22

Newspaper stories p24

A short story – 'The perfect crime' p26

**Speaking**

Information gap – Zoe's party p25

Telling stories: fortunately / unfortunately p25

**Listening**

A radio drama – 'The perfect crime' p 26

**Writing**

Linking words: while, during and for WB p20

Writing a story 1 WB p21

**UNIT 4   / let's go shopping!**  p30

**Grammar**

Quantity: much and many

How much butter? How many eggs? p30

Some and any: some apples, any grapes p31

Something, anyone, nobody, everywhere p32

A few, a little, a lot of   p31

Articles: a shopkeeper, an old shop, the River Thames

He sells bread. p33

**Vocabulary**

Buying things: milk, eggs, bread, a packet of crisps, a can of Coke, soap, jumpers, department store, antique shop, newsagent, trainers, a tie, conditioner, first class stamps.

**Everyday English**

Prices and shopping: 160$

What's the exchange rate?

How much is a pair of jeans? p37

**Reading**

'The best shopping street in the world' – Nowy Swiat, in Poland p34

**Speaking**

Town-survey – the good things and bad things about living in your town p32

Discussion – attitudes to shopping p34

**Listening**

'My uncle's a shopkeeper' p33

Buying things p36

**Writing**

Filling in forms WB p26

**UNIT 5 / What do you want to do?**  p 38

**Grammar**

Verb patterns 1

Want/hope to do, enjoy / like doing, looking forward to doing, 'd like to do p38

Future intentions: going to and will

She is going to travel the world.

I'll pick it up for you. p 40

**Vocabulary**

Hot verbs: have, go, and come

Have an accident

Go wrong

Come first p 44

**Everyday English**

How do you feel? Nervous, fed up, cheer up! p45

**Reading**

'Hollywood kids – growing up in Los Angeles ain't easy' p42

**Speaking**

What are your plans and ambitions? P42

Being a teenager p42

**Listening**

A son – You've got a friend p44

**Writing**

Writing a postcard WB p32

**Appendix (D)**: **Abbreviations**

CD-ROM…………………………………………..Compact Disc Read-Only Memory

CD……………………………………………….. …………..Compact Disk

CALL …………………………………………Computer Assisted Language Learning

ICT …………………………………………...Information & Communications Technology

SLA…………………………………………………..Second Language Acquisition

L1…………………………………………………………………… First Language

L2…………………………………………………........................Second Language

CMC………………………………………….Computer Mediated Communication

EFL………………………………………………….English as a Foreign Language

ESL …………………………………………………English as a Second Language

ELT……………………………………………. ……English Language Teaching

EG……………………………………………………………Experimental Group

CG…………………………………………………………………Control Group

CT……………………………………………………. ...Computer Technology

TBL………………………………………………… Technology Based Learning

IT………………………………………………………...Information Technology

WTC ………………………………………………Willingness to Communicate

TESOL …………………………….Teaching English to Speakers of Other Languages

**Appendix (E): Definitions of Key Terms**

**1. CD-ROM:**

Hockly and Dudeney (2007) defined a CD-ROM as "a circular disk which looks like a music CD, but can store a range of data such as texts, videos, audio files or images"(p.183).

**2. Multimedia**

Haynie and Peterson (1998) defined multimedia as "any system that uses communication technology to deliver messages through more than one channel at the same time. Most importantly, it refers to interactive multimedia systems that use a computer to control electronic devices that allow the user to use segments and channels as desired" (p.281).

**3. Computer**

Haynie and Peterson (1998) defined a computer as "a machine typically electronic which can solve problems, communicate with other machines, and store data" (p.275).

**4. Achievement Test**

Hughes (1989) defined an achievement test as "a test directly related to a language course, its purpose being to establish how successful individual students, groups of students, or the courses themselves have been in achieving objectives" (p.13).

**5. Computer-Assisted Language Learning (CALL)**

Hockly and Dudeney (2007) defined Computer-Assisted Language Learning (CALL) as "an approach to language teaching and learning which uses computer technology"(p.183).

**6. Information and Communications Technologies (ICT)**

Hockly and Dudeney (2007) defined ICT as "technology used for processing, storing and retrieving information, as well as for communication" (p.184).

**7. Secondary School**

Al-Bayati (unpublished) made a reference to the definition of Ministry of Education in Iraq:

"A Secondary School is a school that begins with the next grade following primary school, and it includes intermediate and preparatory stages. Each stage consists of three grades"(p.7).

**Appendix (F): A Teaching Journal**

Instructor: Ahmed Falih Rabeea

Faculty: Liberal Arts

Course reflected upon: Using multimedia to teach English for secondary school levels

List of materials used: 15 Computer sets

**Discussion Topics:**

1. **Collaborative team planning**

It is worth mentioning that there was remarkable coordination with the supervisor of this project, the TESOL program leader, Faculty of Liberal Arts, Asian University before and during the process of teaching. He was always following up the process step by step and giving on time feedback when needed in order to go forward and to get the promising results.

Back in Iraq where the teacher was teaching, of course there were some obstacles faced this study. However, the good cooperation with other technicians inside the school facilitated the flow of activities inside the digital classroom where the students were learning through computers.

Also, in the school where the teacher was teaching, there was a fantastic integrative planning with the said school English teachers who gave the researcher a transparent picture of the students.

It was amazing to see that the school principal and behind him the director of Basra Education paid much support to this project. They gave their phone calls to the teacher inquiring if he was in need to any kind of assistance.

2. **Inquiry teaching methods**

As stated above, the topic of the study was using multimedia to teach English for secondary school levels. Therefore, the sole teaching method used at that time were multimedia-based learning materials devoted for the EG students, and traditional textbook assigned to the CG students. The teacher was no more than a class facilitator and controller. The students were face to face with computers to learn on their own

pace as self-learners. Besides, it happened that the teacher intervened in students' work as pairs when needed to ease any obstacle.

### 3. Giving instructions

As this way of teaching through the use of multimedia in classrooms is new to Iraqi learners, so it was important to put into consideration that instructions should be precise and transparent. Every day in the digital classroom, it was recommended to introduce learners to instructions in order to get the pleasing results of using multimedia inside the digital classroom.

In each class, students were provided with instructions on a certain activity. For example, when the topic of a certain class was "words that go together", the learners were given instruction on the nature of this topic and how to work on it.

### 4. Demonstration of self-reflection and assessment

As well known, that reflection demonstrated through the process of teaching is very important in order to improve the way of work with learners. Through the class and while learners were learning with the aid of computers, as a teacher, it was crucial to take into consideration the on time reflection on the learners and whether they were on the right track of learning or not.

As part of the teacher's criteria to assess whether learning had taken place or not, and while he was moving around the students to check the progress of learning, and while students were working as pairs on computers, the ease and flow of activities were a good reflection that learning took place in the digital classroom.

### 5. Interventions to improve teaching

As the researcher believes that since this technique of teaching with multimedia is new to Iraqi educational system and students were not well adapted to, so it is understandable that a lot of feedback was received. It is worth mentioning that during the period of two months teaching, the supervisor of this study was step by step following up the flow of the experiment.

Once the teacher was asking about the possibility of bringing each two students to work on a computer as the number of computer sets was fifteen, the supervisor

recommended that bringing students to work as pairs and sharing a computer will enhance learning and results will be fruitful. This feedback led the teacher to change his teaching process and this created a mode of cooperation in students' learning.

Moreover, learners' feedback took another shape. They requested to have extra time to learn inside the digital classroom. They had a normal break of five minutes between classes. They reported to their teacher that they would like to make use of this break inside the digital classroom. Definitely the teacher considered it as an indication of their interest and desire to make use of extra time of learning through multimedia-based learning materials in the digital classroom.

### 6. Interventions to improve student learning

As just mentioned above, student's requests took a sense of feedback and it was needed to adjust teaching process in line with their interests. Students were requesting to have instructions about a certain activity before getting started. Therefore the teacher took about 2-3 minutes at every class giving them instruction on an activity and this for them and their teacher represented much confidence in the effect of multimedia-based learning materials.

### 7. Interaction with teachers and students

The first days of teaching, interaction was not that much weighed and this was of course due to the newly adopted method of teaching through using multimedia in classrooms. However, later, interaction was productive and fruitful as the most shy students expressed their willingness to learn on their own pace without being afraid of committing mistakes in front of their classmates.

Even students who were marked as troublesome in other classes were easily engaged in the lab due to their interest in learning with multimedia-based learning materials.

However, there was some time in digital classroom where the interaction was low. This, as the researcher could diagnose, belonged to the rarity of instructions teacher provided during the first two weeks of teaching. At the beginning of week (3), the researcher took into consideration the importance of the instruction at the start of each activity to avoid putting students in an ambiguity.

### 8. Materials used in the digital classroom

Multimedia-based materials were the source of teaching inside the digital classroom. Some criteria through which the teacher judged the success of the learning process inside the digital classroom were the excitement and enthusiasm of the learners to learn collaboratively as pairs. This actually granted them more space of freedom of learning without being afraid of making mistakes. Other was the insistence of the learners to go on their learning process even when the bell rings. This indicates the value of the teaching materials (multimedia-based learning materials) in driving on in that new method of teaching in which the teacher was no more than a class facilitator and controller.

### 9. Lesson Planning

Every day, there was a lesson plan without which the teacher cannot manage his teaching. The first four weeks, the lesson plan went as planned where there was no need to change any point as everything was on track. However the lesson plan was under some pressure especially when the teacher was informed that the class period would be thirty five minutes instead of forty five.

The teacher had to manage his class in line with the lesson plan where there some activities were shrunk. The teacher does believe that teachers have to put into minds that their lesson plans might be under some circumstances where they have to make the better changes for the sake of their promising teaching results.

### 10. English language use and student's levels of comprehension

Disregarding the fact that the proficiency level of Iraqi secondary school students is low, the use of English as a means of instruction was promising. Most of the students were able to learn through computers easily without being lost. This means that their comprehension was developing. Yes, it happened that sometimes in the digital classroom slow students were behind and lost, and this returns to the fact that their English skills are not developed yet.

The teacher was rarely forced to go to the L1, Arabic, to explain some vocabulary or instruction in order to bridge the gap and bring the lost students back to the point. To

some extent, the teacher can claim that the comprehension of the students resulted from their willingness to learn through multimedia-based learning materials.

### 11. General Observations

First, it is worth mentioning that the teacher made some observations during a period of two-month teaching. One of these observations made by the teacher indicates that learners were pleased and productive in their work as pairs in learning in the digital classroom. The teacher reported that he encouraged students to learn in pairs.

Second, students, who were significantly motivated to learn English inside the digital classroom, have expressed their interest to extend class period to include the break. And because of being motivated, students were rushing to ask their English teacher whenever they have a vacant class or another class teacher did not show up.

Another observation made by the teacher states that Iraqi students have willingness and positive attitude toward multimedia-based learning materials to learn English. In other words, everyone in the EG inside the lab was willing to participate in the different activities brought to them by multimedia learning materials.

According to the school records, where the teacher conducted his experiment, EG students committed zero absentees. However, the case with the CG was different. Students who were taught with the traditional textbooks committed many absentees during the two-month period of teaching.

Moreover, judging comments made by the EG learners during and after the two-month teaching, shy students reported that they were ready to participate in different activities as they were learning with the aid of multimedia-based learning materials. Some shy students reported to their teacher that they hold their responsibility of self paced learning and were not afraid of committing mistakes as they learn not in public.

As reported by the teacher, students were enjoying English language learning inside the digital classroom. This suggests that the language learning through multimedia-based learning materials became more effective when it is fun and enjoyable. Finally, the teacher observed that students, who were marked as being troublesome in other classes, were easily engaged in the digital classroom due to their interest in learning with multimedia-based learning materials.