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The Effectiveness of Multimedia Technique in Teaching Reading Comprehension to EFL Preparatory School Students

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A B S T R A C T

Using technology in teaching a foreign language has witnessed a wide spread in the recent years which necessitate using available and applicable technology in teaching EFL. Multimedia(MT) technique is one of the most useful and available technology that the teacher can use to facilitate a foreign language learning process.

As far as the researchers know preparatory school students face difficulties in comprehending the texts that they read in English.

Hence, this study aims to investigate the effectiveness of the MT for teaching reading comprehension to those students. A number of hypotheses have been constructed and a sample of 64 fifth year preparatory school male students are selected and divided into two equal groups. The experimental group is taught reading comprehension by using the MT, whereas the control group is taught without using the MT.

An achievement test has been constructed and applied to the involved sample after ensuring its validity and reliability. Then the collected data has been treated statistically. Results indicate that the achievement of the experimental group is significantly better than that on the control group in reading comprehension. This means that the MT has a positive role in improving EFL students' achievement in reading comprehension. Later on, the study ended with some conclusions and recommendations.

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فاعلية تقنية الوسائط المتعددة في تدريس القراءة الاستيعابية لطلبة المرحلة الإعدادية في اللغة الانكليزية – لغة اجنبية

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الخلاصة:

شهد استخدام التكنولوجيا في تدريس اللغة الأجنبية انتشاراً واسعاً في السنوات الأخيرة مما يستلزم استخدام التكنولوجيا المتاحة والقابلة للتطبيق في تدريس اللغة الإنكليزية باعتبارها لغة أجنبية. تعد تقنية الوسائط المتعددة

واحدة من أكثر التقنيات المفيدة والمتاحة والتي يمكن للمدرس استخدامها لتسهيل عملية تعلم اللغة

الأجنبية.وحسب معرفة الباحثين يواجه طلاب المرحلة الإعدادية صعوبات في فهم النصوص التي يقرؤونها باللغة الإنكليزية، لذا فان هذه الدراسة تحاول التحقيق في فاعلية الوسائط المتعددة كأسلوب في تدريس الاستيعاب القرائي لهؤلاء الطلبة.

ولقد صيغت عدد من الفرضيات وتم اختيار عينة تتكون من 64 طالبا من طلبة الصف الخامس الإعدادي وتم تقسيمهم الى مجموعتين متساويتين . ولقد درست المجموعتان أربع وحدات من كتاب اللغة الإنجليزية لطلبة الخامس الإعدادي. درست المجموعة التجريبية باستخدام تقنية الوسائط المتعددة (MT) ودرست المجموعة الضابطة بدون استخدام تقنية الوسائط المتعددة(MT) .تم بناء اختبار تحصيلي وطبق الاختبار على عينة الدراسة.وبعد معالجة البيانات التي تم جمعها إحصائيا, بينت نتائج الدراسة أن تحصيل المجموعة التجريبية أفضل بكثير من تحصيل المجموعة الضابطة في القراءة الاستيعابية وهذا يعني أن استخدام تقنية الوسائط المتعددة له دور إيجابي في تحسين تحصيل طلاب اللغة الإنكليزية في القراءة الاستيعابية. أخيراً انتهت الدراسة بعدد من الاستنتاجات والتوصيات والمقترحات لعمل بحوث مستقبلية.

الكلمات المفتاحية : فاعلية , تقنية الوسائط المتعددة , الاستيعاب القرائي.

Section One: Introduction

1.1Statement of the Study

Students learn better when printed words are associated with visual aids such as, audio devices, pictures, films, graphic texts, power-point presentation and animation (Ayres and Sweller, 2014: 209). In multimedia technique, more and more animation materials are used

Teaching and learning English language has witnessed the integration of technology. One of the simple and available technologies in the hand of the teachers and students is the multimedia technique. That means the use of multimedia-based CD ROMs in education (Al-Khayyat, 2016: 274).

The new era assigns new challenges and duties on the modern teacher. The tradition of English teaching has been drastically changed with the remarkable entry of technology. Technology provides so many options as making teaching interesting and more productive in terms of improvements (Patel, 2013: 116).

Using authentic materials has a great effect on developing learners' language performance. Authentic materials introduce learners to real- world language that may help them as they develop life- long reading habits. Researchers have concluded that learners gain huge comprehension when they are engaged in the texts they are reading, thus giving an excellent authentic material enhances reading comprehension (Alkhayyat, 2012:7). The most available technique to present the authentic material is via multimedia technique (MT, for short). When the authentic text is presented via multimedia, the learner can comprehend it easily because he/she is exposed to pictures, films, audio devices that enhance

comprehending the story of a text.

To the best knowledge of the researchers, EFL students mostly face problems to comprehend the texts that are presented in their textbooks. The currently used teaching techniques may be one of the causes behind those problems. Therefore, this study aims to utilize MT in teaching reading comprehension in order to fill a gap of information in literature of this area through investigating the effectiveness of the adopted technique.

1.2 Aims of the Study: The current study aims at:

1- identifying multimedia as a teaching technique.
2- finding out the effectiveness of MT in teaching reading comprehension to the fifth preparatory school students.

1.3Hypothesis of the Study: The aims of the current study are supposed to be achieved through verifying the following hypothesis:

There is no significant difference between the mean scores of the students' achievement who are taught reading comprehension via MT and that of the students' achievement who are taught via traditional method.

1.4 Value of the Study: The study is hoped to be useful to:

1- EFL teachers and specialists towards improving their students' reading comprehension.
2- EFL learners through encourageeing them to use MT while practising a variety of activities via authentic materials.
3- Syllabus designers to recommend EFL teachers to use MT while presenting lesson activities and exercises in order to meet their learners' needs.
4- State pedagogical implication since the obtained results could help EFL teachers to realize the actual role of MT in teaching reading comprehension.

1.5Limits of the Study: The study is limited to Fifth year preparatory (scientific branch) school male students who are studying "English Course for Iraq" during the first semester of the academic year 2018-2019.

1.6 Definitions of Basic Terms: To avoid any ambiguity in the terminology used, the basic terms are defined operationally as follows:

Multimedia Technology refers to: films, images, video clips, and PowerPoint presentation programme used while teaching EFL reading materials to the sample of the study.

Reading Comprehension: refers to the fifth preparatory school students' ability to comprehend what they read and can answer any comprehension questions related to the given text.

Preparatory School Students: refers to the students who are at the level that follows the intermediate stage, usually students at that level are between 16 to 19 years.

Section Two: Theoretical Background and Previous Studies

2.1:Theoretical Background

2.1.1Reading Comprehension

Reading skills are the umbrella of realization, explaining, and attitudes of a written text or a printed one. Comprehension technique is the conception of the tenor of a written text and it includes the awareness that leads to comprehension. The activity of reading skills deals with “language form”, whereas the deep understanding is the final product, transact with “language content” (Day and Bamford, 1998:194).

The comprehension is a debate between the reader and the writer (Nuttall, 2000:98). Comprehension is a complicated psychological aspect which involves linguistic factors, such as (1) the phonological factor; (2) the syntactic factor; (3) the morphological factor; (4) the semantic factor; and (5) the cognitive and emotional factors (Hurts, 2001:692). The one who reads can get information from the writer by his/her idioms, sentences of the paragraph, the whole paragraphs of a given text, and so forth, and tries to comprehend the within emotion of the author(s) (Hurts, ibid: 694).

Reading comprehension is the process of making meaning from text. The goal, therefore, is to gain an overall understanding of what is described in the text rather than to obtain meaning from isolated words or sentences. In understanding information in a text, children can develop models, or they can represent the meaning of the text ideas during the reading process. There are two classes of mental models (related to reading comprehension): a text-based model, which is a mental representation of the propositions of the text and a situation model consisting of what the text is perceived to be about (Jacobowitz, 1988: 128).

It is important to shed the light on mental modeling. Reading is a cognitive description of the text discourse. The "text-based model" includes approach elicits from the reading of following sentences that are consistently enrich by presumption that are important to form the text coherently. At a "local level", understanding of a written text includes the treating of the "symbolic representations" of items of words, phrases, and sentences. At the same time, at a more "global level", a learner should connect thought via sentences and shape a cognitive model that covers complex themes and "story plots".

Versus, "situation models" combine adding details inferences that merge pervious knowledge with "text-based information". Opposite to the "text-based models", "situation models" do not usually have the direct text information but enhance a more adjustable information structure that can help the combining of both visual and verbal representations (Aloraini, 2012: 77-78).Thus, the building-up of a "situation model" is a vital effective process that is driven by the cooperation of the reader (the text structures) and the grammatical content. It is a united description of the meaning of the "text ideas" (Kintsch, 1998: 146).

In building-up a "situation model" the learners are asked to find coherence at the "local and global levels" and to guess meaning which is usually hidden by inferring from their present background knowledge. While doing this, the learner earnestly composes the "situation model" by utilizing information in the

text in addition to information from saved previous knowledge. Thus, the major dissimilarity between "text-based" and the "situation model" is pretended to be one of "inference making". The "text-based model" is inferentially light, whereas, the "situation model" is inferentially heavy (Al-Hela, 2002: 17). Thus, "reading comprehension" is a complicated mutual set of operations need complicated mental functioning at a number of phases together.

2.1.2 Reading Strategies: Extensive and Intensive Reading

The Silent reading strategy could be sub-classified into extensive and intensive reading. Intensive reading strategy is often a “classroom-oriented activity” in which pupils concentrate on the linguistic or meaning of a paragraph. Intensive reading attracts pupils’ interest to discourse markers, grammatical structure, and other surface structure details for the sake of comprehending meanings, implications, and cultural relations (Brown, 2001: 312).Extensive-reading process is to read for the sake of pleasure; it is done in order to gain an over-hall understanding of texts. It often indicates reading for pleasure and actually does not refer to the books to be learned in depth. It enhances learners to develop fast reading, it also enhance ingenerating thoughts and it keeps the readers active (Brown, 2001: 315).

In addition, Allen and Campbell (1972:184) state that "extensive-reading out-side classroom evolve into a more English language instructors' responsibility than it is now. If an educational institute gets a library, one should not be inferred that reading process will happen by itself. Extensive reading provides readers with knowledge that increases words, novice vocabulary, modern thought, and the field of cultural aspect.

Intensive-reading means to read passages in depth, take-care of each vocabulary and every new idea. It is a type of reading skills that is demanded for reading a study or a work-paper (Sesnan, 2000:51).Intensive study, as mentioned by Pahuja (1995:178), concentrates upon the assimilation of language which consists of studying words, phrases and sentence structures including grammatical patterns and getting information. Also, intensive reading aims to enable pupils to speak English correctly, improving and extending their mastery knowledge and enabling them to use English without fear.

Skimming and Scanning

Skimming is viewing rapidly over a paragraph to get a general idea of the subject. It is to be able to skim a text and give a judge needs somewhat good realization of the general ideas, transitional paragraph (Cramer, 1998: 57).

Concerning the teacher's role in skimming skill, Roe and Smith (2012: 254) explain that when teachers teaching pupils to skim a text, s/he should inform the pupils to read first the introduction paragraphs of a story or text in order to get a general idea and then start to skip-out information as s/he reads; that means to read the key information and phrases to reach to specific idea.

Pupils have to try to read as rapidly as possible when they skim a text. They have to use skimming when they have limited time and must cover material in a very fast way.

In a scanning process the eyes run through texts, in order to search for specific information. It is benefit for searching for information, definition of idiom, formula of a specific subject, or other precise information. Whereas, skimming is an organized search that helps student to look for information about topics, chapters, or books. The process of scanning is a “skip-and-search technique” to determine an answer for a given question (Cramer, 1998: 57).

When teaching scanning, the teacher gives the pupils some words from the text and also specifies a specific time (for example 3 minutes) for the pupils to see how long it will take them to find these words. As the pupils become more familiar at finding the words, the teacher can introduce phrases and increase the number of words that pupils should locate their meaning quickly (Cohen and Cowen, 2005: 467).

2.1.3The Multimedia Animation and Reading Comprehension

Diversity means that multimedia is the integration and use of multiple media. For example, the case of a movie has played on a computer, a comprehensive MT that realizes a variety of media, such as a sound image animation is integrated, interactive, intelligent, easy to expand, synergistic, and real-time in addition to the diversity of the information carrier. Integrated digital signal can comprehensively process paragraph, audio, graphics, animation, images, video and other information, and naturally they gather these divergent kinds of information (Cha and Nam, 2014, cited in Wang and Wang, 2018:1679).

Learners may choose and agree on information based on their culture and habits, and infer knowledge based on the new information they gain for a specific context. Intelligence gives an "easy-to-use", "user-friendly interface" that manages the computer device more emotional, more acceptable, more confidential, and more familiar. It can be connected easily to numerous external devices to exchange data, to monitor data and to control data. Furthermore, the utilization of "digital information" efficiently solves the dilemma of misuse of data during transmission and processing task. Coordination among multiple media and coordination of time, space, and content is one of the key technologies for multimedia. Real-time performance means that in a multimedia system, there is a close relationship both in time and in space, and it is a group with synchronization and coordination (ibid:1680).

2.1.4 Models of the Reading Process

2.1.4.1 Bottom-Up Reading Modal (BUP)

The "bottom-up model" explains the process of reading as constructing understanding from a small letter to a whole-word, to a phrase, and to a

sentence. As for Lado (1964: 134- 136), reading basically involves identifying the graphemes, by contrast, an association of graphemes, looking for regularization for fitting, the problems in patterns and the exceptions. Then the learner moves to words and their meanings and finally to the way the message is imparted in the phrase or the sentence (Jasim,2007:323). Dubin and Bycina (1991: 196) see BUP model as fostering practices in reading instruction which enables learners to build up their decoding abilities from the bottom up process.

2.1.4.2 Top- Down Reading Model (TDP)

In the top-down model, the fundamental idea is that adequate reading is not word-by-word description. The reader "uses minimal language cues to make hypotheses about the meaning of the text. These hypotheses are then confirmed, rejected or modified " (Hudson, 2007:218). According to this model, the learners who read may predict the meaning of the given information. As the reader reads s/he "takes in large chunks of the passage at a time, combines what s/he previously knows with the meaning that derives from the passage" (Dubin and Bycina, 1991:197). Accordingly, reading strategies such as, reading for main ideas of the whole sections and paragraphs, and looking for details which offer supporting evidence are stressed (Jasim, 2007: 323).

2.1.4.3 Interactive Reading Model (IRM)

During the 1980s an interactive model that puts the “bottom-up and top-down” together is proposed. According to this model, the reading skill acts such as the word which is near to the meaning, are taken from the text via eyes and transferred to the human-brain. The recent matches between eyes and brain present knowledge to the incoming data to simplify the processing of novice information. Thus, the two processes the bottom-up and bottom-down, are complementary (ibid). The reading skills often focus upon finding specific information, finding the main idea, drawing inferences, discovering bias and understanding vocabulary in context(AL-Farjani,2002:23)

Grabe (1991: 383) points out that the interactive reading model may refer to two different things. It may refer to the common information between the readers and the passages, or to the involving of many component skills in simultaneous process. In this regard, Brown (2001: 299) states that the combination of BUP and TDP are very important, and has entitled “interactive reading” that almost primary ingredient in successful reading methodology.

2.1.5 Media in Education

Heinich et al (1989) find that media can be effectively used in informal education situations where a teacher is not available or is working with other students. In informal education, media such as, video cassettes and computer-based media can be used by trainees at the work site or at home. In some instances an instructor may be available for consultation via telephone.

Samuels (1997: 17) has suggested the methods that learners could involve

with different phases of enhanced, put-in a specific context repeated readings. When a reader is asked to exchange in diverse ways with "CD-ROM talking books" on multimedia accessions, it is possible that s/he will has unique chance to promote understanding and fluency that are identical to those benefits mentioned in repeated readings of a normal passage. Teachers should remind learners that the purpose of oral reading is to comprehend the meaning of the text.

The course of multimedia may offer the readers with huge information; it is more abundant than textbooks and aid the readers to gain good cultural background information, wealthy content and authentic materials, that reflect the real life. Via MT, the readers can develop their listening ability, and expose to the culture of the western countries. Rich information via different ways may equip the readers with information and knowledge and the readers can share information that make them active readers and communicators (Patel, 2013: 118).

Multimedia technique enhances instruction content, saves the class-time and overcomes the “teacher centered” instruction strategy that helps to improve classroom active atmosphere. Usually, in a big class the learners face difficulties to gain time to practise speaking activity, thus using MT helps in providing good opportunities to practise reading and speaking skills. The traditional instruction strategies usually focus on instructors’ teaching, and the information is limited in the hand of the teachers and textbooks. Whereas, in MT information crosses both space and time and provides more powerful, visual, real-life environment inside the classroom to learn EL.

Multimedia technique emphasizes the role of learners, and supports the significance of “interaction” among instructors and learners. The fundamental role of MT is to train and develop learners’ speaking and listening abilities, and to improve their "communicative competence". Via such technique, the instructor acts as a facilitator which is a vivid role during the teaching process. Utilizing MT in teaching context creates a good opportunity to exchange information between the learners and the instructor (Patel, 2013: 119).

2.1.6 Multimedia and Reading Comprehension

In teaching reading skills, "electronic books" shift reading mood from a static into a multisensory, interactive authentic experience. Almost hard-copy books include a "story, grammar, or rhetorical structure" which hypotheses that the readers start

12

reading the material to reach the end. "Hypertext"(one can get information by clicking on a keyboard letter to shift the page) add sample information and widen the horizon of content via using the audio-visual and "video texts" that have great influence on the nature of reading and writing skills (Davies, 1997: 24).

Sabri and Tawfeeq (2005: 54) similarly believe that multimedia has a significant effect on learning. The interactive capabilities of multimedia provide students with the opportunity to explore a wide variety of avenues reading to

topics they are studying. Providing more interactivity in the user interface appears to have a substantially positive effect on learning. An interactive interface allows learners to control, manipulate and explore material. It also allows the computer to periodically asks learners to answer questions that help them integrate the material. A computer's patience is endless; students can use it as many times as they want. So using a computer multimedia programme solves many problems including, individual differences, besides, every student will take part in the lesson.

Educational technology embraces the means by which information can be presented, mainly audio-visual aids and computers. These means are composed of two related areas, hardware and software. Hardware is concerned with the actual equipment such as, overhead and slide projectors, recorders, video cassette, computers… etc. On the other hand, software is concerned with the different items that are used in conjunction with this equipment such as, overhead transparencies, slides, tapes, computer programmes, and so on (Ellington et al, 1993).

Multimedia is the use of text, pictures, video, and sound to present information. In the last decade, there has been an explosion of computer-based multimedia applications in education. Some educators perceive multimedia as the ultimate vehicle for improving, education and reducing the dissatisfaction of students, parents, and teachers with our schools. Hamdi (2009:46) believes that the educational technology concept contains three dimensions. The first dimension, which is called the operational procedure refers to a number of steps that work together taking into account the relationships between planning, preparing, developing, implementing and evaluating of all learning and teaching processes.

The second dimension, which is called technical aids, includes hardware and software equipment. Hardware is the equipment used for presenting material such as, still and motion picture projectors, tape-recorders, television, and computers. Software refers to the programmes used to change educational material from their traditional form,i.e. a book to a programmed form. These programmes can be presented through using any hardware such as, tapes, transparencies and CDs(ibid).

The third dimension, which we may call human elements, refers to learners and teachers, who are considered to be the two main sides of the educational process.In “educational technology” teachers and learners are seen as senders (resources) and receivers. The resource could be human or non-human; it could be a teacher, a computer or any other hardware. When using non-human resources, educational technology suggests changing the role of teacher from a lecturer to a designer, developer, user and evaluator of the subject matter (ibid).

The computer is extensively used in instruction. The use of computers in instruction is known as Computer-Based Instruction (CBI), Computer Aided Learning (CAL), and Computer Assisted Instruction (CAI). Using computers for instruction purposes can be done in many different types of programmes,

including Tutorial. Drill and Practise, Simulation, Discovery, Gaming, and Interactive Multimedia (Sabri and Tawfeeq. 2005: 53).The wide use of computers in education, mainly in instruction, is a reaction to the many problems encountered in the traditional way such as, the increasing number of learners, the small number of well-educated teachers, and the individual differences between learners (Salem, 2007: 17).

2.1.7 Multimedia Technology and Reading Comprehension

Multimedia is a term that generally describes a computer-based programme. It presents and combines texts, graphics, animation, pictures, audio and video with links and tools that let the user navigates, interacts, creates, and communicates (Evelyn, 1982: 8). The use of these media together is particularly important for learning. Multimedia Technology helps students visualize difficult-to-understand concepts. Dervan, et al(2008: 803) state that:

> *"Multimedia technology serves as one of the primary advantages e-learning has over traditional classroom based learning and has already been applied successfully in various computerized learning environments from child education games to corporate training exercises. Multimedia instruction uses motion, voice and music, text, graphics, video and still images, to enhance learning by stimulating multiple sensory organs simultaneously. When combined, these tools enable the elegant explanation and enhanced comprehension of learning objects. Attention, comprehension and recall studies have concurred that people retain only 20% of what they see but they remember as much as 80% of what they see, hear, and do simultaneously".*

An obvious characteristic of MT is interactivity. Interactivity implies that media respond to some input from the user. Interactivity is the most important feature of an interactive multimedia programme because of its crucial role in knowledge acquisition and the development of cognitive skills(Chou (2003: 267).

Interactive multimedia programmes combine a face-to-face interaction, graphics model, audio effects, narration, video-clip, and provide good opportunities to practise the language inside and out-side the classroom. Multimedia programmes combine the advantage of independent learning and enable the learners to control the amountof information that the learner needs during the lesson. Such programmes provide flexibility to learners and practise foreign language and gain information and be able to learn more at anytime. New interactive technologies make it easier to create environments in which students can learn by doing(Yousif, 2005:18).

Interactive multimedia programmes have to contain comprehensive exploring to aid connect related topics and help the learners' progress during the lesson. They also offer a wide range of information and data in one interface. This is done by the use of hyperlinks which organize information and data and help the learner survey. Information can be presented in different codes,i.e.

verbal and non-verbal and in different modalities, i.e. in visual and auditory formats (ibid: 21).

2.1.8Software Planning

The beginning of any technology plan is to make a rapid survey of the available and practical technology that a learner is familiar with and will use to access, so computer programme designers can start by asking some key questions about the hardware learners have and its capacity, (Zahran and Zahran, 2003: 18).

Learners should be able to access to the computer programmes to take advantages from them. One may design a computer instructional programme that works on computers easily, or minimize the learning strategies gap that the learners face during the learning process (Horton and Horton, 2003: 7).

Many instructional designers and educationalists believe that designing educational computer programmes requires a number of plans and procedures that are controlled by a group of factors such as, educational aims, learners' capabilities and cost. The function of these programmes is to help learners get better results and avoid any problems that might occur when working with the programmes. Azmi (2005:12) adds that educational computer programmes usually consist of several main topics. Every topic has a number of lessons and every lesson contains items that are displayed in isolated pages to present instruction. In addition, computer programmes contain some files to save learners' performance. Producing such educational programmes usually passes through three main stages; design, development, and evaluation. Each of these stages includes a number of steps and procedures, as follows:

2.1.8.1 The Design Stage

The design stage refers to the process of specifying how the content is to be learned and presented on multimedia learning systems. This stage is also known as the planning stage. It is when the designer or the researcher outlines the software project and what it should contain: aims, topics, activities, and exercises. The designer should plan three things: curriculum, lessons and items. When planning the curriculum, the designer should begin with the objectives and keep them in focus throughout the process, from planning until evaluation. S/he should also establish an initial profile about the subjects and topics to be covered, as well as the strategies of learning, characteristics and expectations of the target learners (Low et al, 2003: 28).

2.1.8.2 Lesson Planning

Lesson planning is the next step that should be taken into account in the design stage.It starts with analyzing the lessons' content and dividing these lessons into items. Flowchart should then be prepared to clarify the sequence of phases.

The last step in the design or planning stage is items planning. Here, the designer categorizes all items by specifying texts, exercises, and/or vocabulary items, and defining the feedback strategies (Pahuja, 1995:121).

2.1.8.3 The Development Stage

When the plan is ready, the designer starts the development stage. This

stage refers to the process of going from the idea of creating a piece of software through to the final product. The steps involved in this stage include: scenario designing, programming and pre-experimenting (Low et al, ibid: 29).

2.1.8.4 Evaluation Stage

When the evaluation stage completed, the final version should be installed and saved into a compact disk, then labeled with its name and the authoring system. Printed instructions for operating the programme should be put inside the CD cover. Finally, the programme becomes ready for use in real context (Azmi, 2005: 17).

2.1.19 Conclusion

To sum up, it is inferred that teaching reading comprehension via MTs facilitates the learning process and motivates the learners to develop their reading skills. Reading comprehension skills and strategies can be implemented via MTs. The English language teacher can teach reading comprehension strategies such as, activating prior knowledge, inferring information, monitoring reading process, questioning, searching, summarizing, and visualizing a mental image of information, via MTs which will help the learners to promote their reading skills.

2.2 Previous Studies

2.2.1 Fuqha (2002)

The aim of the study was to investigate the effect of using multimedia CD-ROM based software on the development of English Language Skills. The sample of the study consisted of 36 third grade students, at private school in Nablus Area for the second semester of the academic year 2000/2001. The instruments of the study included pretest, posttest, and CD-ROM Software. Results showed a significant difference between the experimental and control groups in their achievement in the posttest and in favour of the experimental group.

2.2.2 Jahaf (2008)

The aim of the study was to conduct the impact of multimedia computer programme on reading-comprehension skills of 2nd level students at the "Department of English" at Sana'a University.The sample included 84 students. They were divided into two groups, the experimental and control groups. Each group consisted of 42 students. A multimedia reading programme, pre and posttests were used to collect the data of the study. Results showed that there were no significant differences between students who worked on the computer programme individually and those who worked on the same programme cooperatively.

2.2.3 Kuo et al, (2010) conducted a study to investigate the effect of multimedia on students' reading comprehension. The participants were two classes of fourth graders from a public elementary school in an urban area of central Taiwan. A Reading Comprehend (RC) Platform, pre and posttests were used to collect the data of the study. Result showed that the students had high interest in the RC Platform and had also gained great benefits on reading comprehension via the

multimedia.

2.2.4 Orencia (2010)

The aim of the study was to reveal the impact of multimedia Blurb on 2nd language reading comprehension skills. The sample of the study consisted of 113 third year secondary education students. The instruments of the study were pretest, posttest, students' survey of reading attitudes, and multimedia Blurb programme. Results showed that the participants' performance in the experimental group was significantly better than the participants of the control group.

2.2.5 Ismail and Basri (2012)

The aim of the study was to investigate the role of an Interactive Multimedia Reading Comprehension Package (IMRCP) for developing learners' reading skills. The sample of the study consisted of 135 respondents from 4 different faculties – Health Sciences, Sports Science and Recreation, Administrative Science and Policy Studies (e-PJJ), and Pharmacy (Foundation). The instruments of the study included pretest, posttest, and IMRCP. Results showed that the majority of the students indicated either "Agree" or "Strongly Agree" that their levels of motivation – Attention (95.7%), Relevance (99.3%), Confidence (100 %) and Satisfaction (94.9%), were improved after they began using the IMRCP.

2.2.Discussion of the Previous Studies

The previous studies are discussed according to their aims, samples, instruments and results. Most of the previous studies aim to investigate the effect of MT and the computer instructional programmes on school students' achievements in reading comprehension such as, the studies of Fuqha (2002), Jahaf (2008), Kuo, et al(2010), Orencia(2010), and Ismail and Basri(2012). The current study also aims to reveal the effect of implementing MT on fifth preparatory male students' reading comprehension achievement by programming the student's book materials using PowerPoint programme, animation, and series of pictures, sound, and video- clip.

The samples of previous studies include elementary school students as in Kuo, et al(2010), intermediate to school students as in Fuqha (2002), and secondary school students as Orencia (2010). Whereas the other studies include university students such as, Jahaf (2008),as well as Ismail and Basri(2012). The number of those samples ranges between 36 and 135 students. The sample of the current study includes 64 preparatory school students.

All of the previous studies as well as the present study have employed pre and post tests for collecting the required data. However, additional instruments are used by some of the previous studies. Fuqha (2002), Jahaf (2008), Kuo et al(2010), Orencia (2010), have used CD-ROM Software, a Reading Comprehend Platform and, survey and multimedia Blurb programme, respectively.

As far as the obtained results are concerned, most of the previous studies show the positive effect of multimedia in English Skills, in general and in reading comprehension skills, in specific such as, Fuqha (2002), Kuo et

al(2010), Orencia (2010)and Ismail and Basri(2012).. However, the study of Jahaf (2008), has shown no role for the multimedia computer programme in students' achievement in reading comprehension.

Section Three: Procedures

3.1 Experimental Design

The experimental design is an efficient procedure for testing hypotheses and planning experiments so that the data obtained can be analyzed to yield valid and objective conclusions (Key, 1997: 1).Best and Kahn (2006: 177) state that the experimental design is a "blueprint of the procedure that enables the researcher to test his hypothesis by arriving at valid conclusions about the relationship between independent and dependent variables".

To carry out the experiment of the current study two classes in a preparatory school are selected. It is a kind of "Nun randomized experimental control – group pretest – posttest design". Both groups are submitted to pre and posttests. The experimental group is taught via MT, whereas the control group is taught via the communicative language teaching approach, i.e. without using MT. The two groups are set for a pretest, and at the end of the experiment, they are set for a posttest, as shown in table (3.1).

Table (3.1) The Experimental Design of the Study

The groups	**The test**	**Independent Variables**	**The test**
Experimental	Pretest	The multimedia technique	Posttest
Control	Pretest	———	Posttest

3.2 Population and the Sample Selection

The population of the current study includes the fifth preparatory students (Scientific branch) at the public schools of Al-Hilla city at Babil Governorate whose total number is 98. The selected sample includes 64 fifth preparatory school (scientific branch) male students at Al-Waily Preparatory School for Distinguished Students in Al-Hilla city. It represents 65.31% of its original population.

The 64 students are distributed into sections A and B. There are 31 students in group "A" and 33 students in group "B". Randomly, section (A) is selected to be the experimental group and section (B) is selected to be the control group.

Students sample has been equalized in age, academic attainment of father and mother, and their scores in the pretest, in order to ensure that the results of the experiment will not be affected by such variables.

3.3 Instructional Materials and Lesson Plans

The instructional materials which are taught to the two groups of students include units one, two, three, and four of English for Iraq Student's Book (5th preparatory). The reading comprehension texts of these units have been taught

to the experimental group by adopting the MT. whereas, the control group has been taught the same texts without using the MT for a period of ten weeks. The Experiment started on the 1st of November 2018 and ended on the 20th of January 2019. The steps followed for teaching the two groups are explained in the following model lesson plans:

1. Introduction, 2.Practice: the teacher applies (in front of the students) the reading comprehension techniques such as: skimming, Scanning, guessing meaning, and inferring ideas. After that the students Practise all the activities, 3.Process: questions are asked to open a class discussion after presenting a reading text via film clip, power-point, photos, visual and pictures, 4.Project: the teacher may provide the students with additional topics which can be assigned as homework. Whereas, the lesson plan of the control group contains the same steps, but the way of teaching is different, as follows:

1. Introduction, 2. Practice: the teacher asks students to read the reading text and then answer questions related to the text, 3. Process: the teacher discusses some questions with the students, shares the meaning of new words, and exchanges information that relate to the text, 5. Project: students are required to review the activities of the lesson at home (optional).

3.4 Instrument of the Study: Construction of an Achievement Posttest, its Scoring Scheme and its Application

The achievement posttest consists of two passages taken from the English for Iraq 5th Preparatory Student's Book, the first one is from unit two, lesson 8, entitled "The Internet". The second passage is taken from unit four, lesson 1 entitled "Bakkar". The test includes four questions, as shown in Appendix(4).

Table (3.2)The Specifications of the Contents, Behaviours, Number of Items, and Scores of the Posttest

Contents	Behaviours	No. of Questions	No. of Items	Scores
Skimming	-to skim the main idea of the text.	1	2	2
Scanning	-to scan for a specific idea	2	11	11
Vocabulary Meaning	-to guess the meaning of the given vocabulary.	3	5	5
Texts Ideas	-to infer some ideas from the text.	4	2	2
T o t a l		4	20	20

The first question measures students' ability to skim for the main idea of the given text. It consists of two multiple choice items. Each item is allocated one mark. The second question measures students' ability to scan for a specific idea. It consists

of two sections. Section (A) consists of five multiple choice items, and it is

allotted five marks, and section (B) consists of six True/False items. Each item is allocated one mark, the total mark for question two is eleven. The third question is measuring students' ability to guess the meaning of the given vocabulary. It consists of five multiple choice items. Each item is allocated one mark. The question is out of five. The fourth question measures students' ability to infer ideas from a text. It consists of two multiple choice items and each item is allocated one mark, as shown in table 3.2

After calculating the validity DL, DP, and reliability of the posttest, it has been administered to the experimental and control groups, whose number is sixty-four male students, on the 1st October, 2018. The posttest papers have been distributed to the involved subjects who are informed to answer the questions within fifty minutes. After finishing the exam, the test papers are collected to be scored.

Section Four: Analysis of Data, Discussion of Results, Recommendations and Suggestions

4.1 Analysis of Data

At the end of the experiment which lasted for 10 weeks, the data has been collected and analyzed as follows:

Comparison between the Achievement of the Experimental Group and that of the Control Group in the Posttest.

Results indicate that the mean scores of the experimental group and control group in the posttest are 15.97 and 12.33 and their standard deviations are 1.78 and 1.83, respectively, as shown in the table(4.1).

The t-test formula for two independent samples is used in orderto show if there is any significant difference between the mean scores of the two groups in the posttest. The calculated t-value is found to be 8.04 whereas the tabulated one is only 2.00, at 0.05 level of significance and 62 degree of freedom.

Table (4.1)The Mean Scores, SD, and "T-Values" of both Experimental and Control Groups' Achievement in the Posttest.

Groups	No	Mean scores	SD	Df	Sig. of diff.	T-Values	
						Calculated	Tabulated
Experimental	31	15.97	1.78	62	0.05	8.04	2.00
Control	33	12.33	1.83				

This means that there is a significant difference between the mean scores of the control group and that of the experimental group and in favour of the experimental group, since the tabulated t-value is less than the computed t-value.

4.2 Discussion of Results

According to the results of this study, it has been found that there is a significant difference between the achievement of the students who are taught reading skills via MT and that of the students who taught via the traditional

method and, in favour of the former. This result is in inline with the results of Fuqha (2002), Kuo et al (2010), Orenica (2010), and Ismail &Basri(2012). Those results indicate that the integration of multimedia into school curriculum enhances students' learning, supports students' reading comprehension, and improves students' knowledge, understanding, motivation and achievement.

The improvement achieved by the students of the current study after ten weeks of applying MT could be attributed to many reasons, such us:

1- The instructional material which presented via the MT has met students' interest and needs.
2- The MT motivates the students and allows them to study the material at speed that suits their needs.
3- The MT provides information in a variety of modes, such as dynamic animations and video (illustrations) and hypertext.
4- The MT provides the students with opportunities to practise and participate during the lessons, and to share and promote their information and reading skills.

4.3 Conclusions

1- Results revealed that the outcome of the experimental group is higher than that of the control group in the posttest which means that the use of MT has a positive impact on learners' achievement in reading comprehension.
2- The MT has aroused students' interest and provided them with some knowledge that enables them to know how to read a text comprehensively.
3- Experimental group students have got opportunities to use different instructional reading techniques like skimming, scanning, guessing, and inferring ideas.
4- Experimental group students show high speed in finding information in a text than the students of the control group.

4.4 Recommendations: In terms of the obtained results, it is recommended to:

1- use MT in teaching EFL at primary, intermediate and preparatory schools.
2- make use of CD-Rom, animation, PowerPoint programme in teaching reading skills to EFL students.
3- redesign beneficial instructional practices and suitable appropriate classroom environments by EFL teachers.
4- encourage EFL teachers to employ a variety of teaching techniques to give their students opportunities to interact with each other and improve their knowledge.
5- include MT at apre-service training syllabus of EFL teachers.

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The Appendix: The Posttest

The First Passage: The Internet

What do you do if you want to know about a high school volleyball team in Beirut? Who can your brother ask if he wants to find a language school in Scotland where he can study English this summer? Where can your sister get the latest information if she has to write an essay about world climate change? And what should you all do if you want to hear the latest Kadhim Al Sahir hit? The answer is simple. You go onto the Internet and look for a

useful website.

The Internet – sometimes called the World Wide Web (www)- is a huge international network of computers. It was invented in 1990 by two computer scientists –Tim Berners –Lee from Britain and Robert Cailliau, from Belgium. At the time, they were both working at a physics laboratory in Switzerland. They invented the system to help scientists to share ideas and information. In 1993 the Internet became public and it grew very fast. Today it is used by millions of people all over the world and its use is still growing.

To go on line , all you need is a computer and an Internet router or wi-fi. And if you look at the statistics, most teenagers in United States are connecting regularly. A recent survey showed that 82% of teenagers are sending and receiving e-mail. Most of these also say they frequently surf the net for information. Another popular online activity among teens is instant message(IM). Over 80% have listened to music online and 50% have downloaded music from the Internet. Only 13% of American teens are not using the Internet at all.

❖ Skimming Reading for the main idea (gist)

Q1. Encircle the correct answer : (4 marks)

1-The main idea of the text is about.a. Internet. b. Surf the net. c. Wi-Fi

2- The net was invented in. a. 1990. b. 1991. c. 1993.

*Scanning for specific ideas

Q2. A: Encircle the correct answer.(5 marks)

1- The two scientists who invented internet are

a. Mike and Allen. b. Tim and Robert. c. Louis and John

2- The net was very fast in

a. 1991 b. 1992 c. 1993

3-The recently survey showed that most of teenagers are

a. Surfing the net. b. sending and receive e-mail. c. going online**.**

4-The net system was invented when the two inventors working at a physics lab in

a. Britain. b. Beirut. c. Switzerland.

5- A written conversation between two people means

a. Internet. b. Website. c. Message.

Q2. B: Write T for True items and F for False ones(6 marks)

1. The great inventors were from Bulgaria. ( ).

2. In 1993 the net grew and became public? ( ).

3. To go online, you need only a computer and a wire( ).

4. The Internet is not helpful to a man? ( ).

5. The most popular online activity among teens is IM ( ).

6. The Internet is sometimes called WWW ( ).

❖ Guessing meaning of vocabulary in context

Q3. Write the number of the item and the letter of its the most appropriate meaning(5 marks)

1- Website

a. a set of pages on the story

b. a set of pages on a book.

c. a set of pages on the net

2- Go online

a. save to the net.

b. connect to the net.

c. leave to the net.

3- Surf the net

a. visiting beautiful places.

b. visiting a lot of friends

c. visiting a lot of website.

4- E-mail

a. messages sent or received using post office.

b. messages sent or received using internet.

c. messages sent or received using post man.

5. Download

a. copy information using flash.

b. copy information using camera.

c. copy information using net.

❖ Inferring ideas

Q4. Choose the correct answer: **(4 marks)**

1- The writer wants to tell us that

a. How to use the net.

b. How the world has changed.

c. How to send a message.

2- Which of these options fits as another title for the passage?

a. The Computer Programmes.

b. The Computer.

c. The Great invention.