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Title

**The Effectiveness of Multimedia Aids in Enhancing the EFL
learners' Reading Comprehension Skill.**
**The Case Study : Secondary School Third year Pupils
In Tizi-Ouzou.**

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Dedication

I dedicate this work :

To the dearest people to my heart :

To my lovely parents: **Ammar** and **Nouara**

To my dear sisters and brothers

To all my family members

To all my friends

Hassina

Dedication

I dedicate this work:

To my parents, **Ahmed** and **Farida**

To my sister and my brother and my friends

Without exception and all my relatives

To everyone who has encouraged me

and made me stronger.

Fatma Zohra

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See the light

Abstract

The present study investigates the extent to which multimedia is effective in enhancing the third year pupils' reading comprehension skill. Its overall aim is to check whether multimedia devices are used by the teachers, then show the significant role of those materials in reading comprehension. Our investigation took place in two secondary schools in Tizi Ouzou during the academic year 2018/2019. This interest is due to the need to transform and update the quality of education. To reach these objectives, we have used the cognitive theory of multimedia learning suggested by Richard Mayer (2009) as our theoretical framework. This study is based on the mixed method research which combines the quantitative and qualitative methods. A questionnaire delivered to the third year pupils and a structured interview conducted with their teachers are used as research instruments and both statistical and content analysis are used to the analysis of the data gathered. The results indicate that multimedia is integrated during the learning and teaching processes and the majority of the EFL teachers and learners support the use of such materials in the classroom. Besides, the findings show that most teachers use videos and pictures and tape recorders when teaching English. In addition, the results reveal that overwhelming majority of the learners consider multimedia as a new effective strategy that help them improve their reading comprehension skill.

Key words:

EFL, Multimedia, Reading Comprehension, Teaching and Learning,.

List of Abbreviations

CMLT : Cognitive Multimedia Learning Theory

EFL : English as a Foreign Language

ICTs : Information Communication Technologies

QCA :Qualitative Content Analysis

SPSS : Statistical Package for Social Sciences

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Contents

General Introduction

1. Statement of the Problem

The last two decades have witnessed a massive emergence of technology that has revolutionized all aspects of life and has consequently changed and influenced the educational system. A great number of teachers today make use of a wide variety of authentic multimedia such as TV, CD Rom, Computers, Electronic Dictionaries, Emails, Blogs and Audio Cassettes, Power Point Presentations, Videos, pictures, DVDs or VCDs to accelerate the learning and the teaching process and to give more colorful, stimulating lectures (New Horizons, 2005), contrarily to the traditional methods of teaching that relied only on printed tools. Multimedia learning is one way of learning that combines words that can be either spoken or written and pictures that can be either static in the form of photos, or dynamic in the form of animations or videos. This process changes the way of communication, perception and interpretation that makes the content of the course therefore more effective and interesting.

For many years, the use of multimedia in classrooms have been highly supported by the teachers of English as a foreign language (EFL) , to enhance the learning process and create a motivating environment and especially improve their pupils' reading comprehension skill. In other words, several researchers have strongly advocated the importance of multimedia resources as part of the learning experience. In this respect, Okolo and Ferretti (1998) believe that the students can understand more complex information better through the combination of text, audio, video and sound that develops deep reading skills in ways that differ from the traditional methods of learning.

Teaching English as a foreign language (TEFL) has been steadily increasing from year to year in Algeria. It is taught in middle and secondary schools, as well as all the universities of the country. One of the major goals of the teachers is to improve the EFL students' reading comprehension skill that could be achieved through the integration of technology in

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classrooms. In other words, the multimedia classroom offers the opportunity for students to build solid background, acquire a new vocabulary and understand the very complex concepts.

Improving the reading comprehension skill has always been one of the key challenges of EFL teachers. These latter are increasingly using the different technological tools to help the learners who struggle in reading and comprehending. Therefore, the integration of these different multimedia devices in the learning environment creates new interests for the EFL learners, as it makes the reading process dynamic instead of using only the written texts printed in the book. Multimedia is one of the educational techniques that addresses more than one sense simultaneously, as it addresses the senses of sight and hearing. Its programs provide different stimuli in their presentations which include a number of elements; some of which are texts, spoken words, sound and music, graphics, animations and still pictures (Aloraini, 2005).

The present study; therefore, aims to investigate the importance of the implementation of the different multimedia devices in improving the EFL pupils' reading comprehension skill in the secondary school. Many researchers, teachers and students have investigated this issue according to divergent aims. In this regard, Herda Khalida and Mekira Saloua in 2016 have investigated "The role of multimedia in motivating EFL learners in the classroom, case study: first year master, applied linguistics and social semiotics" in the department of English at the university of Mouloud Mammeri in Tizi Ouzou, as an attempt to demonstrate the effectiveness of multimedia in rising the students' motivation. In addition, Nedri Hamid in 2016 has also stressed the importance and the influence of these multimedia resources on the development of the speaking skill among Heterogeneous groups. This study, that took place at the Bridge Way World School of English in Tizi Ouzou (B.W.W), has indicated that using such resources, help learners to acquire new vocabulary and improve their pronunciation and oral skill.

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The previously mentioned research works have mainly dealt with the integration of multimedia resources as a primary source of information and their crucial role in the learning process. Although this issue has attracted the attention of many researchers, but none of them have addressed its importance in enhancing the reading comprehension skill which is a very fertile area that should be taken into consideration. Therefore, the present work attempts at giving a bird-eye view on the role of multimedia aids in improving the reading comprehension skill among the third graders of two secondary schools in Tiz-Ouzou : Epoux Seghouane in Ouadhia and Hamdani Said in Draa el Mizan.

2. Aims and Significance of the Study

As already mentioned before, today's world is characterized by an extraordinary spring in the process of using multimedia materials in the field of TEFL. Therefore, the overall aim of our research is to check primarily whether the teachers of the two secondary schools of Tizi Ouzou (Epoux Seghouane and Hamdani Said), implement multimedia materials during the teaching process then investigate the importance of those materials in enhancing the third year pupils' reading comprehension skill. This latter, is considered as a crucial skill that every EFL learner should master, especially the third year pupils who have Baccalaureate examination. In addition, technology today is starting to reshape teaching and learning; therefore, instructors should make use of a wide range of those materials to facilitate the understanding. This study then, highlights the importance of integrating multimedia in the teaching and the learning process, and attracts teachers' attention to the crucial role of multimedia devices in the classroom.

To conduct our research, we have relied on the cognitive theory of multimedia learning (CTML), which has been popularized by the work of Richard E. Mayer (2009) and other cognitive researchers. Generally, this theory suggests that students learn better from words

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and pictures than from words alone (Mayer, 2005). In other words, CTML centers on the idea that learners attempt to build meaningful connections between words and pictures and that they learn more deeply than they could have with words or pictures alone (Mayer, 2009).

3. Research Questions and Hypotheses

In order to achieve the already stated aims, a number of questions are asked

- 1) Do third year teachers of English implement multimedia in the secondary schools of Tizi Ouzou?
- 2) What are the multimedia materials that are used for EFL teaching and learning?
- 3) To what extent are multimedia materials beneficial in improving third graders' reading comprehension skill?

The above mentioned questions lead us to propose the following hypotheses:

H1: Third year teachers of English implement multimedia in the secondary schools.

H2: The multimedia materials that are widely used to learn English are videos and pictures.

H3: The use of multimedia may have a crucial role in enhancing the EFL third graders' the reading comprehension skill.

4. Research Tools and Methodology

To find out to which extent our hypotheses are true, we have adopted the mixed method research. In other words we have combined both the qualitative and quantitative methods

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together for data collection and data analysis. Therefore, to elicit the necessary information, we have designed a questionnaire for the third year pupils of two secondary schools in Tizi-Ouzou and an interview conducted with their teachers.

5. Structure of the Dissertation

The present dissertation follows the traditional simple model. It consists of a general introduction, four chapters and a general conclusion. The first chapter, Review of the Literature, is devoted to expose the related literature in which the main theories and concepts are mentioned, as well as the definition of the key terms. The second chapter, which represents the practical part, attempts to give descriptions of the research methodology including the research design and the main techniques and methods for data collection and data analysis. The third chapter is devoted to the presentation of the findings of the questionnaire and interview. The fourth and the last chapter is devoted to the discussion of the findings on the basis of theoretical framework as an attempt to validate the research hypotheses and give answers to the research questions. Finally, the dissertation ends with a general conclusion which provides a detailed summary of the different points discussed throughout the research.

Introduction

The present chapter revolves around the crucial role of the different multimedia aids in the field of language teaching and learning .It attempts to review the main theoretical principles that are related to the implications of multimedia resources in language learning and mainly the reading comprehension skill .It is divided into three sections .The first section entitled “ Multimedia in Teaching and Learning” begins with a number of potential definitions of multimedia, and its relation to language teaching and learning . Then, the second section highlights the significant role of multimedia in improving and developing the EFL learners’ reading comprehension skill. The third section presents the theoretical foundation on which the research is based on, that is to say the cognitive theory of multimedia learning which highlights the importance of multimedia representations and their influence on learners’ understanding.

1. Multimedia in Teaching and Learning

1.1 Definitions of Multimedia

Multimedia is a broad term that has been defined differently by various authors. To start, Mayer (2000 :5) defines multimedia as “*the presentation of the learning material using both words and pictures*”. By words, he means, the material is presented in verbal form, either spoken or written and by pictures he refers to the materials that are presented in pictorial form including illustrations, photos, animation, or video. The same author stresses the idea that Multimedia help people build more accurate and effective mental models when words and relevant graphics are both presented than when words are presented alone since they offer them the opportunity to see and hear simultaneously (Lindstrom,1994).

In the same vein, Schnotz and Lowe (2003) define the term multimedia as the combination of multiple technical resources for the purpose of presenting information

represented in multiple formats via multiple sensory modalities. In other words, Multimedia represent the consolidation of all elements of technology as they combine sound, image, video, drawing and text with a high quality in an interactive environment(Fouda, 2008). Moreover, Neo and Neo (2001 :1) for their part define multimedia as “ *the combination of various digital media types, such as text, images, sound, and video, into an integrated multisensory interactive application or presentation to convey a message or information to an audience* ”.Another definition of multimedia is proposed by Ivers and Barron (2002 : 2) who claim that multimedia consist of “*the use of several media to present information*”. In simple terms, Multimedia involve“ *the combined use of several media, such as movies, slides, music, and lighting, especially for the purpose of education or entertainment*” (Brooks, 1997: 17).

The commonality among these definitions is “*the integration of more than one medium into some form of communication. Most commonly, though, this term now refers to the integration of media such as text, sound, graphics, animation, video, imaging, and spatial modeling into a computer system*”(Jonasses, 2000: 207).

1.2 The Importance of Multimedia in Learning

In recent years, the advent of multimedia and the Information and Communication Technologies (ICT) has rapidly transformed the scenario in using instructional technologies in the educational institutions particularly in higher education (Roblyer and Edwards, 1998) making them therefore an inevitable tool and a necessary technique that creates the opportunity for the learners to develop and improve their language skills during the process of learning in EFL classes. To add, the power of multimedia lies in the fact that it is multi-sensory. In other words, it provides a complex multi-sensory experience, presenting information through text, graphics, images, audio, and video.

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In addition, Ogunbote and Adesoye (2006) for their part, stress the significance of multimedia that make the concepts and information easier to present and comprehend when the words are complemented with images and animations, stating further, that it has been established that learners retain more when a variety of senses are engaged in impacting knowledge. Multimedia has also been shown to elicit the highest rate of information retention and result in shorter learning time (Komiya, 2000). Besides, Säljö (1999) points out that multimedia elements support learners by allowing them exchange their opinions and become active participants in the classroom instead of being only passive learners. It is also important to mention that by using these tools, the different skills are easily integrated, since the range of media makes it natural to combine listening, speaking, reading, and writing in a single activity (Warschauer and Haelay, 1998). Said differently, multimedia help learners increase their abilities in the four skills and create a motivating environment that mobilizes them to participate in class activities since it offers them the opportunity to see, hear and express their own ideas in their words.

The immersion of multimedia materials has introduced important changes in the educational system and impacted the way we communicate information to the learners (Neo and Neo, 2000) which has offered the opportunity for teachers to present their educational content in a multimedia format and in an interactive, multi-sensory manner rather than in the traditional single media format (text). This not only provides the teacher with a more effective way to transfer knowledge and information to students, but also enables the students to learn in a more productive way since it has been proven that a mixture of words and pictures always integrates a large amount of information (Mayer, 2001). In other words, multimedia can be an extremely effective instructional medium for delivering educational information. This is because it enables the teacher to present the information and the content of his lecture in

various media to attract the learners' attention and obtain the desired outcomes, i.e., via either sounds, texts, animations, videos or images.

Furthermore, multimedia provides learners with an environment that can satisfy the needs for exploration, manipulation, stimulation, knowledge to resolve problems, and self-enhancement (Boster, F.G., et al, 2002). It also allows EFL learners to have access to authentic materials, functional, interactive and constructive language learning situations to overcome their anxiety and increase their motivation (Ibid) making English classes, therefore, more vivid, interesting and harmonious (Ibid). To support the same idea, Tway (1995) posits that "*Multimedia offers an excellent alternative to traditional teaching by allowing the students to explore and learn at different paces, every student has the opportunity to learn at his or her full potential*".

1.3 The Role of the Teacher in a Multimedia Classroom

Today, the world is characterized by an extraordinary spring of the different multimedia technologies that have become a necessary technique among EFL teachers. Thus, it is important to mention that, the introduction of these new resources into the educational institutions has completely changed the role of teachers.

In the traditional classroom, the teachers are required only to explain, assist and give information. This traditional method of teaching is generally known as a "chalk and talk" method. But, today, in multimedia classroom the role of teachers is beginning to shift from being active to passive.

Learning with the integration of multimedia aids is taught from a completely different angle. Teachers have finally found other sources for teaching, that make them guides and facilitators who give flexible, responding assistance, advice and suggestions to make their learners active participants in the process of learning instead of remaining passive.

Multimedia environment requires the teacher also to learn how to put together tasks and materials to guide their learners to successful execution and conclusion of their projects. Teachers in this role find themselves designing, planning and organizing their classrooms in order to effectively use and integrate technology in classrooms.

2. Multimedia and Reading Comprehension

Improving the four skills (listening, speaking, reading and writing) of EFL learners has always been one of the central aims of teachers, and the integration of the different multimedia aids in education has finally made it possible. Multimedia teaching; therefore, adds visual and auditory information to a text that help foster learners' reading comprehension skill which is considered as one of the four fundamental language skills that an EFL learner must perform. In other words, with the use of information in multiple presentation modes, the aids for text comprehension could conceivably be presented in textual form, in visual form, in auditory form, or in any combination of these presentation modes (Plass, 1997).

2.1 The Reading Skill

2.1.1 Definitions of Reading

The definition of reading varies among research studies and differs from one author to another. To start, according to Daiek (2004), reading is an active process that depends on both an author's ability to convey meaning using words and your ability to create meaning from them. Carnie (1990) for his part regards reading as getting information from the text and interpretation. Another definition is given by Grabe and Stoller (2009) who consider reading as the ability to draw meaning from the printed page and interpret the information appropriately. Rivers (1981:147) states that "*reading is the most important activity in any language class, not only as a source of information and a pleasurable activity, but also as a*

means of consolidating and extending one's which are knowledge of the language". That is to say, reading is an important language skill that every learner should master.

2.1.2 Reading Comprehension

Reading comprehension is the ability to get meaning from what is read (Pressley 2000, Birsch, 2011), which consists according to Grellet (1981) of extracting the required information from the text as efficiently as possible. This process requires the reader to be actively engaged in the text to comprehend information in it. Smith and Johnson (1980) assume that reading comprehension means the understanding, evaluating, utilizing information gained through the interaction between reader and author, said differently, the comprehension is learners' ability to understand and decode the content of a particular written or spoken text.

Block (2004) and Graves (1998), for their part, consider reading comprehension a complicated process in which readers have an important role in making meaning from the text through applying existing skills and employing the previous background knowledge. As a result, it can be said that reading comprehension is the process of making sense of words, sentences and connected text.

2.1.3 Reading Comprehension Strategies

Comprehension is the main goal when reading, and in order to read with comprehension, the learners are required to read with some proficiency. In order to obtain the desired results, learners should follow some effective reading comprehension strategies which are mainly based on their own prior information and background knowledge, in other words, many researchers have designed some reading comprehension strategies which they consider as vital to successfully obtain knowledge (Adler, 2001; Grellet, 1999; Magiliano, 1993;

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Hanson, 1996 ; Anderson and Pearson 1984; Clarck ,1980) . Some of these reading strategies are as follow: predicting, skimming, scanning, inferring, guessing the meaning of new words, self monitoring, and summarizing.

a. Predicting

This strategy is about the ability of the learners to make predictions of what they will read and to relate the new information to the old information. This enables them to construct new meaning based on their prior knowledge and their predictions. Magiliano (1993) argues that *“prediction strategy involves thinking about what might coming next in the text. It is applied by effective readers that mean, they used pictures, headings and text as well as personal experience to make predictions before they begin to read”* (Magiliano, 1993 :35-53). These predictions oftentimes deal with background prior knowledge of the readers during their life experience or through reading any other materials (Moreillon, 2007). The good learner; therefore, will be able to expect and anticipate what to come next in the following pages of the text, based on his predictions.

b. Skimming

The skimming technique is defined by Grellet (1999) as *“a general idea about the content of printed materials through reading the text quickly i.e. in this strategy, readers will look for something quite specific or get general ideas before putting effort into close reading”* (Grellet, 1999 p: 2-25). This technique is about having a general idea of the text; the learner is not required to read the whole text but only to notice the general titles and headings of the text. This strategy requires the readers to read quickly and to have an overview of the text.

c. Scanning

Scanning is a strategy that is defined as the quick reading in order to select specific information or to find answers for questions in a specific topic. This strategy is used when the reader knows what s/he is looking for, by reading quickly and highlights only the key words that are important for him/her. According to Grellet (1981) *“scanning is a reading technique that requires the reader to search for specific information without reading the whole text, through looking at its title, table of content and so on”* (Grellet, 1981: 58-59).

d. Inferring

This strategy is a crucial step to succeed the reading skill; it makes the readers read between the lines. It requires the learners to construct and draw the same conclusion of the text as the author, by relating their prior knowledge with the information of the text , Zimmerman (2009:23) states that *“drawing inferences from text is a technique which requires readers to use their prior knowledge (schema) and textual information to draw conclusion, make critical judgments, and form unique interpretations from text”*. Inferences may occur in the form of conclusions, predictions, or new ideas (Anderson and Pearson, 1984).

e. Guessing the Meaning of the New Words

One of the most known obstacles for readers is to understand and to know the meaning of the new words or vocabularies that they are not familiar with. According to Clarck (1980), the effective way to solve the readers’ problem when dealing with the new words is *“to guess the meaning of unfamiliar words from the context in order to save time and to continue reading without interruption or referring to dictionary”* (Clarck, 1980:211-220). The ability of guessing the meaning of the unfamiliar words from the context is a good way of improving the comprehension skill.

f. Self monitoring

This strategy is when the learners take responsibility of their behaviors to become independent when they understand or do not understand while reading any text. This strategy gives the opportunity for learners to become aware of what they read, and learn how to fix problems and improve their reading as well as their comprehension. Hanson (1996) claims the students who are able to self-monitor their own performances are more likely to become more independent and more responsible of their own behaviors, said differently, become “agent of change” (Hanson, 1996: 173-191).

g. Summarizing

This strategy requires the learners to identify the key terms, and to be able to recount for the crucial events in order to be more concise in understanding, and to highlight the main ideas of the text that can be added to their repertoire. In Oxford (2006) summarizing is defined “*as a short description of the main ideas or points of something without any details*”. In addition, identifying the main ideas allow the students to understand the hidden meaning of the author’s point of view, and his purpose behind writing that text. Pearson (2000) asserts that this strategy, allows both students and teachers to monitor comprehension for reading materials. Jones (2006) for his part, states that highlighting the central ideas, focusing on key details, using key words and phrases, breaking down the larger ideas, and writing only enough to convey the gist, may facilitate the reading comprehension skills for learners (Jones, 2006).

2.2. The Importance of Multimedia in Reading Comprehension

For many years, a considerable number of longitudinal studies have asserted the importance of incorporating multimedia materials in the learning and teaching process. The use of these different multimedia aids has been regarded by many researchers as monumental, since they provide the learners with many significant advantages and promote them with

high motivation and interest in language learning (Guariento and Morley, 2001; Wilcox et al., 1999) and therefore offer them ample opportunities to foster their skills in general and the reading comprehension skill in particular .

Multimedia offers a big range of different tools that teachers can employ in EFL classrooms, that will allow them add visual and auditory information to a text .These latter provide learners with necessary background knowledge about the text and also help them determine and develop new vocabularies and find out their meanings. In addition, the big benefit that can be seen is that, teachers do not need to spend too much time on planning and developing resources to provide their students with reliable, various, and interesting sources.

There is no doubt that integrating multimedia during the learning and teaching process help instructors to create a meaningful and a motivating environment that encourage the learners to concentrate and comprehend English texts better. Therefore, using such tools has become a necessity and an important strategy that facilitate the understanding and make the reading comprehension easier.

3. The Theoretical Framework :The Cognitive Theory of Multimedia Learning (CTML)

The cognitive theory of multimedia learning (CTML) is an approach to learning that has been introduced by the American psychology professor Richard Mayer in the 1990s.It is considered as a sub-theory of Jhon Sweller's cognitive load theory which was also applied for multimedia learning. This theory is based mainly on three assumptions about how the human mind works, the nature of the memories and the way that people learn (Mayer,2003).

CTML is based on three cognitive science principles of learning: the human formation processing system includes dual channels for visual/pictorial and auditory/verbal processing (i.e., dual-channel assumption),each channel has a limited capacity for processing(i.e., a

limited capacity assumption), and active learning entails carrying out a coordinated set of cognitive processes during learning (i.e., active processing assumption)(Mayer,2014 : 43-71).

In other words, his CTML is based on dual-channel learning, limited processing capacity and process of filtering, selecting, organizing and integrating information in learners.

3.1 Dual Channel Assumption

The dual channel assumption is based upon the fact that the human cognitive system consists of two distinct channels for representing and manipulating knowledge: a visual-pictorial channel and an auditory-verbal channel (Baddeley, 1986, 1999; Paivio,1986).In other words , the sensory information is introduced to the nervous system from external stimuli, essentially auditory and visual stimuli two separate channels, auditory and visual, gather and process data through the eyes or ears(Mayer, 2003). In simple terms, the dual channel assumption holds that individuals have separate cognitive channels for processing auditory and visual information .In this respect, Mayer (2000:33) explains that *“The dual-channel assumption is incorporated into the cognitive theory of multimedia learning by proposing that the human information-processing system contains an auditory/verbal channel and a visual/ pictorial channel”* .He adds that,

When information is presented to the eyes (such as illustration, animation, video on screen –text), people begin by processing that information in the visual channel; when information is presented to the ears (such as narration or non-verbal sounds) people begin by processing that information in the auditory channel. (Ibid)

This assumption is based upon the research of Paivio and Baddley. That is to say , this concept of separate information processing channels is closely associated with Paivio’s dual-coding theory (1986)and Baddeley’s model of working memory (1986,1999) .

The dual coding theory of Paivio centers on the idea that the verbal and the non-verbal processing have the same grade of importance , assuming that“ *human cognition is unique in*

that it has become specialized in dealing simultaneously with language and with nonverbal objects and events'' (Paivio, 1986:53).

Baddely (1986) for his part has introduced the concept of the working memory, which is often used synonymously with the term short-term memory. Baddeley and Hitch (1974 : 49) define the working memory as “*a system for temporarily storing and manipulating information, in order to carry out complex tasks such as comprehension, learning and reasoning*”. Said differently , the working memory is suggested as being the limited capacity system of the human memory which combines the temporary storing of information and their performance (Ibid).

3.2 Limited Capacity Assumption

Mayer (2003) assumes that, each channel has a limited (finite) working memory capacity. In simple terms, the human mind is a two-channel system of information processing with a limited capacity which consists of visual/pictorial and verbal/auditory processing channels. The human mind; therefore, is able to process only a small amount of information in each channel at one time and too much information can cause cognitive overload. For instance, if the learner watches a video clip with a subtitled text, the visual channel could easily become overloaded when it attempts to process both the video images and the subtitled text at the same time. This limited capacity concept is similar to Sweller’s notion of Cognitive Load (1998) which is related to the human memory’s capacity of understanding and storing a given amount of the presented information and knowledge, and the wide range of images, illustrations and animations that the learner can accept at one time.

3.3 Active Processing Assumption

This third assumption assumes that learning is an active process of collecting, organizing and integrating new information based upon prior knowledge .Mayer (1997) posits

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that learners are actively engaged in processing multimedia environment by selecting relevant information ,organizing the information into a coherent representation, then connecting both visual and verbal representations. In other words,people construct knowledge in meaningful ways when they pay attention to the relevant material, organize it into a coherent mental structure, and integrate it with their prior knowledge (Mayer, 1996, 1999).In addition, these active learning processes are more likely to occur when corresponding verbal and pictorial representations are in working memory at the same time.

Mayer(2003)claims that the cognitive theory is the source from where he took the idea that meaningful learning occurs when learners select relevant information from what is presented, organize the pieces of information into a coherent mental representation, and integrate the newly constructed representation with others .In this respect, in the generative theory of multimedia learning, the learner is viewed as a knowledge constructor who actively selects and connects pieces of visual and verbal knowledge .Said differently, meaningful learning typically refers to a learner-centered approach that allows the learners to build their own significant connections and draw conclusions about their environment (Wightman, 2013). As a result, the learner is more cognitively active in building representations and linking them to previous information (Clark and Mayer, 2011). Clark and Mayer (Ibid:71) explain further that:

Multimedia presentations can encourage learners to engage in active learning by mentally representing the material in words and in pictures and by mentally making connections between the pictorial and verbal representations. In contrast, presenting words alone may encourage learners especially those with less experience or expertise—to engage in shallow learning such as not connecting the words with other knowledge.

To be more clear, this third assumption of multimedia learning centers on the idea that, meaningful learning from words and pictures happens only when the learner engages in three main cognitive processes which are selecting, organizing and integrating (Mayer 1984).

3.3.1 Selecting

It involves paying attention to relevant aspects of visual and verbal information that enters through the eyes and ears. Mayer (1984: 32) defines this process as “*selecting information from the text and adding that information to working memory*”.

3.3.2 Organizing

Once the learner has selected visual and verbal material for processing in visual and verbal short-term memory, respectively, the next step is to organize the selected material in a more coherent way (Mayer, 1984). This process is called "organizing" and it is described as "*organizing the selected information in working memory into a coherent whole*" (Ibid, 32).

3.3.3 Integrating

The third process, integrating, occurs when the learner builds connections between corresponding information; it involves integrating word and image representation with prior knowledge in a coherent mental model (Mayer, 2001). Mayer (Ibid) describes this process as “*connecting the organized information to other familiar knowledge structures already in memory*”. In fact, this integrating process takes place only when the visual information is held in visual short-term memory at the same time that the corresponding verbal information is held in verbal short-term memory.

3.4 The Three Store Structure of Memory in CTML

The CTML includes three important memory stores known as sensory memory, working memory, and long-term memory.

a. Sensory memory

According to Mayer (2005), sensory memory has both a visual sensory memory that briefly holds pictures and printed texts as visual images and auditory memory that briefly holds spoken words and sounds as auditory images. In simple words, spoken words impinge

on the ears and are represented briefly in auditory sensory memory, whereas pictures and printed words impinge on the eyes and are represented briefly in visual sensory memory. The latter allows the information that enters either from ears or eyes to be held for only a very brief time period.

b. Working Memory

Working Memory is considered as the central work of multimedia learning. Mayer (2001:44) believes that “*It is used for temporally holding and manipulating knowledge in active consciousness*” that allows learners to select some sounds for further processing in the verbal channel and some images for further processing in the pictorial channel (and may convert a printed text into a spoken text, which is also processed in the verbal channel). Working memory enables also learners to organize some of the sounds into a verbal model and some of the images into a pictorial model.

c. Long-Term Memory

Long-Term Memory is often described by Mayer (2001) as the learners’ storehouse of knowledge, where they can finally activate prior knowledge to be integrated with the verbal and pictorial models in working memory and store the resulting knowledge in long-term memory. Mayer (Ibid) also indicates that unlike the working memory, long-term memory can hold large amounts of knowledge over long periods of time, but it is necessary to actively think about the material in long term memory to be brought first into working memory.

The following figure represents the CTML:

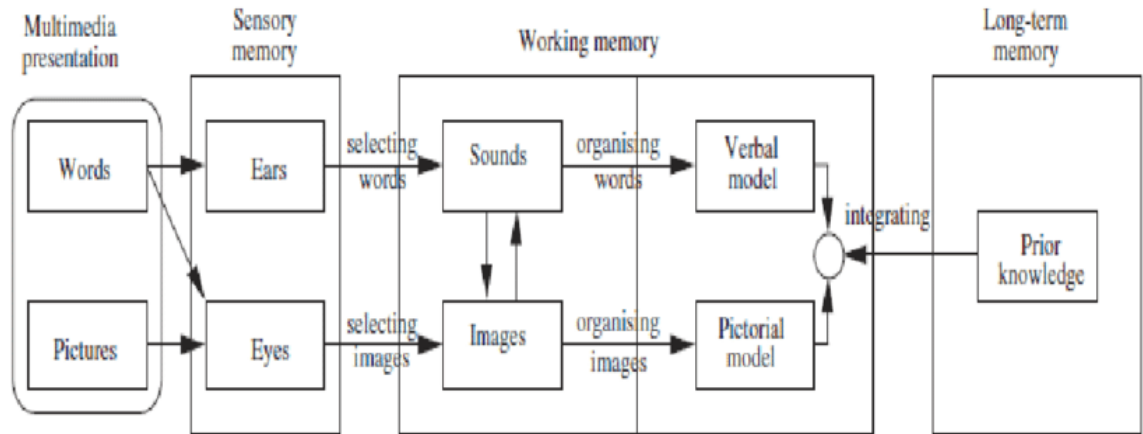


Figure1: The cognitive Theory of Multimedia Learning by Mayer , R.E (2002:92)

3.5 The Principles of Multimedia Learning

In his book, “Multimedia Learning”, Richard E. Mayer (2005) discusses twelve principles that shape the design and organization of multimedia presentations. These principles consist of: multimedia, modality, coherence, signaling, redundancy, spatial contiguity, temporal contiguity, segmenting, pre-training, personalization, voice and image principle.

Among Mayer's 12 Principles of Multimedia Learning, we have selected only six (6) important principles that are significant in our research .

To start, the first principle, **Multimedia Principle**, which is considered as a starting point for all the other principles, suggests that people learn better from words and pictures than from words alone (Mayer,2005) . To support this idea, Sweller (2005) argues that “*the use of both words and pictures lets the brain process more information in working memory*”. Second, **Modality Principle** , centers on the idea that it is better to present an explanation using two modes (words and pictures) of representation rather than one , In this context, Mayer (2005) explains that words include written and spoken text, and pictures include static

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graphic images, animation and video. Third, **the coherence principle** simply indicates that people learn better when extraneous words, pictures and sounds are excluded. It suggests that it is better to use few rather than many words and pictures when creating a multimedia presentation. This principle suggests that students learn better from a coherent summary, which highlights the relevant words and pictures than from a longer version of the summary, i.e. shorter presentation help the learner to select relevant information and organize it constructively (Muresan, 2004) . According to the CTML, adding interesting but irrelevant information to a multimedia presentation can overload one of the channels and thereby disrupt the process of making sense of the explanation in several ways (Mayer, 2002).

Four, another suggestion for improving a multimedia presentation is relying on The sixth principle, **Temporal Contiguity Principle** , which holds that it is better to give a multimedia explanation by presenting the words and pictures at the same time or simultaneously rather than separate in time .According to Mayer (1992) , learners are better able to make mental connections when corresponding words and pictures are in working memory at the same time .The fifth principle, **Spatial Contiguity Principle**, on the other hand insists on the idea that people learn better when corresponding words and pictures are presented near rather than far from each other on the page or screen. In this respect, Mayer, et al (1995) proved that students who read a text with illustrations placed near the corresponding words were 75% more successful on problem solving transfer test than did those students who read the same text and illustration which were presented on separate pages. In simple terms, deeper learning occurs when a text is close to its corresponding graphics. Six, **Voice Principle** states that people learn better when the words in a multimedia message are spoken by a friendly human voice rather than a machine voice.

Conclusion

In this theoretical chapter, we have discussed the importance of teaching and learning through the different multimedia resources and their impact on education in general and on the reading comprehension skill in particular. Next, an overview about the cognitive theory of multimedia learning has been given to explain how the human mind performs when it interacts with such materials. Finally, we have dealt with the relationship between multimedia and reading comprehension by providing some definitions and strategies that are effective and beneficial for EFL learners. The next chapter, research design and methodology, will be an attempt to reflect these theoretical findings into practice where we are going to give a detailed description of the data collection and the data analysis procedures.

Introduction

This methodological chapter covers the research design of the study, which tries to investigate the importance of multimedia in the EFL learning process. This section provides a detailed description about the population who participated in our research and the location where it took place. In addition, it explains the procedures and the instruments used for data collection which consist of a questionnaire for the students and an interview conducted with their teachers; it also presents the techniques of data analysis. This study is based on the mixed method which combines both the qualitative and quantitative methods to gather information.

1. Place of Investigation

In order to investigate the effectiveness of multimedia in enhancing the third -year EFL pupils' reading comprehension skill, we have selected 2 secondary schools in Tizi Ouzou, Abban Remdhane, Fadhma N'soumer .

2. The participants

In order to well investigate the issue presented in this study, we have chosen to work with two different ample populations as an endeavor to examine and to gather as much as possible amount of useful information.

2.1. The pupils

The target population in our study are secondary school third -year EFL pupils of Tizi Ouzou. We have approached pupils of 2 different secondary schools in Tizi Ozou to get a more reliable data .We have distributed our questionnaires randomly, but unfortunately we were unable to retrieve all of them due to the strikes and political problems that our country have witnessed that time, in addition, a considerable number of absentees have been noticed, therefore, we have collected only 85 back out of 100 questionnaires.

Research Design and Methodology

It is important to mention that we have opted to work with the third year pupils because simply, they are increasingly exposed to the different multimedia tools during the learning process and the location of the secondary schools that are more convenient in terms of access and delivery of the surveys.

2.1. The teachers

To achieve the aim set for the present study, we have designed a structured interview for the EFL teachers .The sample of this study consists of (we have not collected the interviews yet) teachers taken from 2 different secondary schools in Tizi Ouzou (Ababane Remdhane and Fatma N'soumer). The main aim of dealing with them is to determine their opinions concerning the integration of multimedia materials during the learning process and their importance in enhancing the pupils' reading comprehension skill.

3. Data collection tools

This embedded study is grounded in a mixed method design, which combines both the qualitative and the quantitative methods, in this respect; Creswell (2012) argues that the purpose of relying on the mixed method *“is to collect quantitative or qualitative data simultaneously or sequentially, but to have one of data play a supportive role to the other form of data”*. This method is a concurrent triangulation strategy, which can result in *“well-validated and substantiated findings”* (Creswell, 2003, p. 217), in other words, the mixed methods gives us the opportunity to use several tools and sources to examine the same phenomenon and to get both the statistical and non statistical findings .

The selected instruments to achieve this research are: questionnaire designed for the third year pupils, and a structured interview conducted with EFL teachers.

3.1. The Questionnaire

Brown defines a questionnaire as *“Any written instrument that presents respondents with a series of questions or statements to which they are to react either by writing out their answers or selecting from among existing answers”* (2001:8). It means, a questionnaire is a very important research instrument which consists of a series of questions and other prompts for the purpose of gathering information from respondents in a short period of time. In addition, it can be handed directly to people or administered via emails to the participants. In simple words, Questionnaires are considered as the most crucial instrument that can be used in any research work. In this line of thought, Mulder (1989, 9) stresses that questionnaire is *“a powerful, structured set of questions that can be used to obtain the opinions of a large number of respondents in writing, without necessarily making contact with the target group”*.

The pupils’ questionnaire

Our questionnaire is addressed to third year EFL pupils to collect reliable data about the effectiveness of multimedia in enhancing the reading comprehension skill. It consists of 16 questions. They are either closed questions requiring from the students to choose Yes/No answers, or to pick up the appropriate answer from the number of options, or open questions in which they are free to answer in the appropriate way and prevent any misunderstanding, the questions were explained to the participants who asked for clarifications.

The pupils’ questionnaire is composed of 16 questions, and consists of three sections. The first section is mainly about the pupils’ opinion about learning English through the different multimedia tools in general. The second section is devoted to discover their opinion about teachers’ use of these materials. The third and last section targets the effectiveness of multimedia in enhancing the EFL learners’ reading comprehension.

3.2. The Interview

Amunuzzaman. S. M, (n.d) regards the interview as a “*very systematic method by which a person enters deeply into the life of even a stranger and can bring out needed information and data for the research purpose*”. The interview is one of the most frequently used methods of collecting in-depth information about people's opinions, thoughts, experiences, and feelings. In our research work, we have opted for the structured interview, which consist of asking a set of pre determined direct questions respecting the same order.

The Teachers’ Structured Interview

For the sake of getting more detailed information about the effectiveness of multimedia in enhancing the reading comprehension skill, we conducted a structured interview with (not yet) English teachers. The interview is composed of 10 pre established questions that were asked in the same order.

4. Data Analysis Techniques

Data analysis is often a research procedure that refers to shifting, organizing, summarizing and synthesizing those data. This section is concerned with the analysis of the information obtained from the teachers’ interview and the students’ questionnaire.

1. Statistical Data Analysis Techniques (SPSS)

In order to analyze the quantitative data gathered from close ended question of both pupils’ questionnaire and teachers’ structured interviews, we rely on the Statistical Package of Social Sciences computer software (SPSS) .As it is mentioned in the “Handbook of Statistical Analysis using SPSS” (Sabine Landau and Brian S.Everitt) , this program is a powerful, user-friendly software package for the manipulation and the statistical analysis that transforms the gathered data into different forms such as tables , diagrams and charts.

2. Qualitative and Quantitative Content Analyses:

At this level, the data gathered from the open ended questions that were designed to find out the opinion and perception of both teachers and pupils are analyzed from two perspectives using; Qualitative and Quantitative Data Analysis. First, the participants' answers which are similar are analyzed quantitatively through quantitative content analysis and represented in the form of diagrams, whereas the answers of other open ended questions which are also related to the participants' perceptions are analyzed qualitatively through qualitative content analysis.

Conclusion:

In this chapter, the research method and research design of the present study were introduced. It starts by providing information about the place of investigation and the participants who took part in this work, and then we have offered a detailed description about data collection tools that were used to carry out our study, as well as the procedures of data analysis. The presentation and the discussion of the results of our study are the central concern of the next part "the presentation of the findings".

Presentation of The Findings

Introduction

The present chapter is devoted to the presentation of the results gathered from the two instruments used in this study, the teachers' structured interview, and the pupils' questionnaires to highlight the importance of multimedia in enhancing the pupils' reading comprehension skill. The close ended questions are displayed via pie charts while the open ended questions are analyzed through qualitative content analysis. This chapter is divided into 2 sections. The first section deals with the results of the pupil's questionnaires while the second section is devoted to the results that we have obtained from the teachers' interviews.

1. The Results of the Pupils' Questionnaire

1.1. Section One: pupils' attitudes about learning English through Multimedia

Q1: Do you prefer to learn English using?

- a) Paper materials b) Digital materials

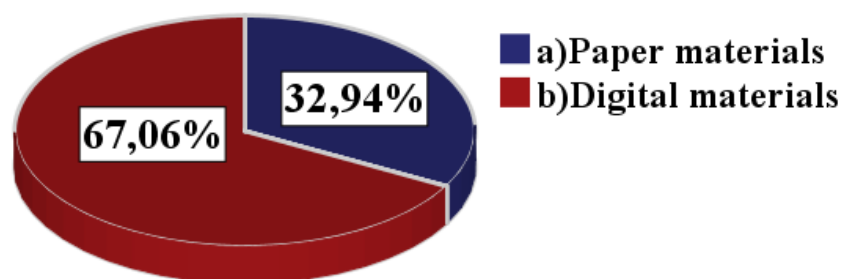


Diagram 1 : Pupils' Choice between Digital Materials and Paper Materials

The first question aimed at knowing whether the pupils prefer to learn English using digital materials or paper materials. 57 of the respondents representing (67, 1%) prefer to use digital tools like pictures and videos while only 28 pupils representing (32, 9%) use paper materials like handouts and books.

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Q2: Are multimedia aids used in your classroom?

a) Yes

b) No

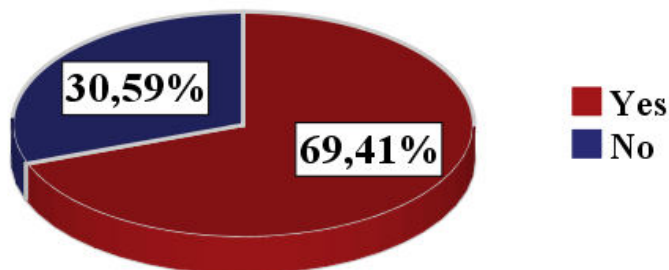


Diagram 2 : The Use of Multimedia in Classroom

The second question tries to check if the different technological tools are used to learn English. 59 pupils representing 69.4 % have affirmed that multimedia is used in their classrooms, while, 26 of the participants representing the percentage of 30.6% have stated that they do not use them.

Q3: If yes, what are the technological tools that you usually use in your Classroom?

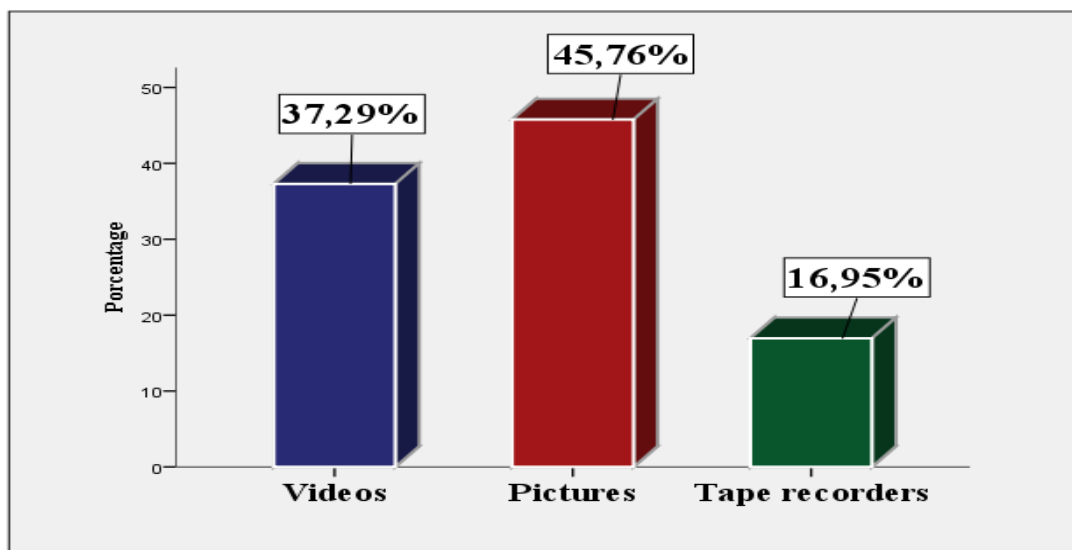


Diagram 3: The Type of Technological Tools Used by Teachers in the Classroom

The students in this question were required to choose what type of materials is usually used in the classroom. The majority of pupils representing (45.76 %) have stated that pictures

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are the most used tool, while (37.29 %) of the participants have confirmed that videos are another important tool during the lecture. In the other hand, 16.95% of the respondents affirmed that tape recorders are widely used in the classroom. Moreover, the respondents have also mentioned other materials like laptops, data show, Power Point Presentations.

Q4. Does multimedia help you understand the lessons better?

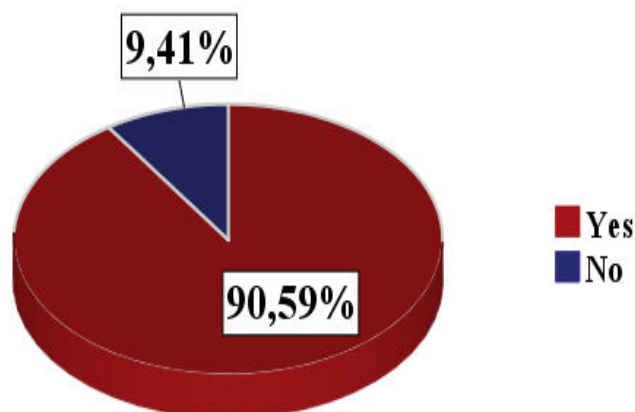


Diagram 4: The Role of Multimedia in Understanding the Lessons

When the pupils were asked whether multimedia help them understand the lessons better, the majority of them (77), representing the percentage of (90.6%), have confirmed that the lessons become more easier to understand when using the educational technology and only eight (8) respondents, representing the percentage of (9.4%) think that multimedia is not useful. From the pie charts, one can notice that most of the respondents feel that the use of multimedia materials really help them while few of them think they do not.

Q5. Do you prefer to learn English by using the different multimedia aids or without them? Explain

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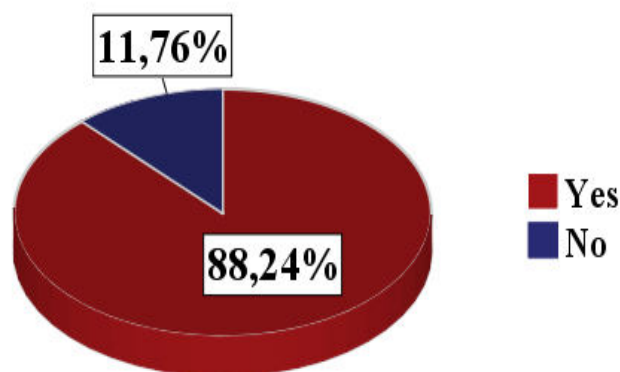


Diagram 5: The Pupils' Opinions about the Use of Multimedia aids

The pie chart shows that 75 of the pupils prefer to learn English through the use of multimedia while only 10 pupils think that it is better not use them .Therefore, most of the respondents representing (88.24%) believe that the use of multimedia is useful whereas the remaining respondents i.e. .(11.76 %) feel the reverse.

Thus, the results obtained from the pupils' answers show that there are many reasons that make them prefer learning English through multimedia resources. Most of the respondents, think that multimedia facilitate the learning process and make the explanations and comprehension easier. In addition, those materials help them memorize the concepts and the information better and in a very short period of time. Moreover, a great number of the pupils have also argued that learning via multimedia make the lesson funnier and enjoyable.

1.2. Section Two: Pupils' opinions about teachers' use of multimedia to learn English

Q6. Do you think that your teacher should use multimedia during the lessons?

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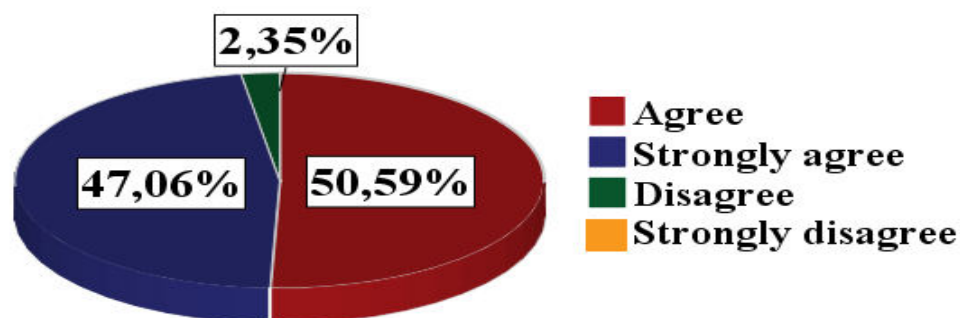


Diagram 6: The Pupils' Opinions about the Teachers' Use of Multimedia

The pie chart shows that 43 pupils representing 50.6% have agreed that multimedia should be used by their teachers in the classroom, while 40 pupils representing (47.1%) have strongly agreed with this idea. In other hand, only 2 pupils making up (2.35%) have disagreed with the implementation of technological devices during the learning process.

Q7. How often does your teacher use the technological tools for learning English in classroom?

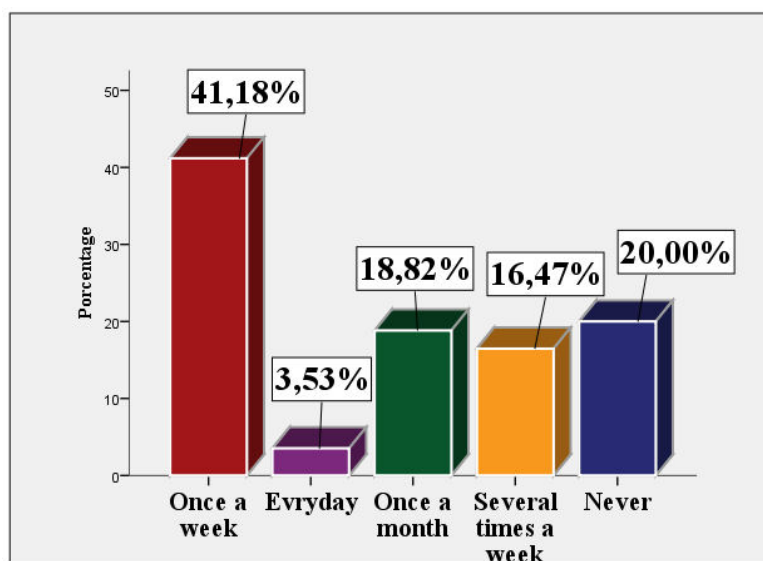


Diagram 7: The Frequency of Using of Multimedia in The Classroom

As it can be seen from the pie chart, most of the learners (35), representing the percentage of (41.2 %) have confirmed that multimedia is used once a week in the classroom. On the other hand, fourteen (14) pupils representing (16.6%) said that they use it several times a week. 16 other pupils stated that they use it once a month and only 3 pupils have assumed

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that they use it every day. 17 other pupils have claimed that they never used it in the classroom, representing the percentage of (20%).

Q8. Do you think that the use of the different multimedia aids in classroom is?

a) Effective

b) Non effective

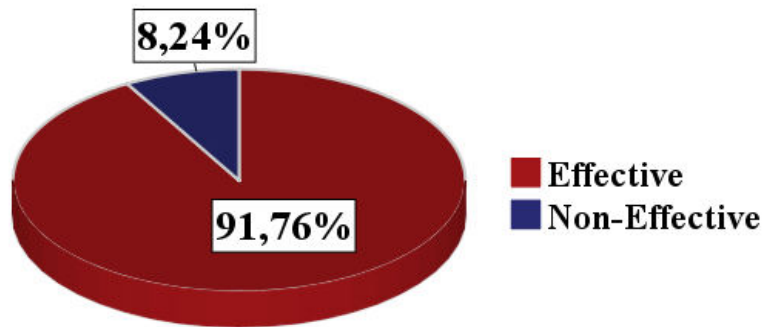


Diagram 8: Pupils' Opinions about the Effectiveness of Multimedia

In the question 8, the pupils were requested to state whether the use of educational technology is effective or not. 78 learners, representing the percentage of (91.8%), have stated that the use of multimedia is effective, while the remaining respondents, which consist of 7 pupils representing (8.2 %), have considered learning through multimedia as not effective. Therefore from this result, it can be understood that most of the students consider the use of multimedia is an essential and a useful technique during the learning process.

Q9. Does the use of technological devices make the lesson?

a. Very interesting

c. less interesting

b. Interesting

d. Not at all interesting

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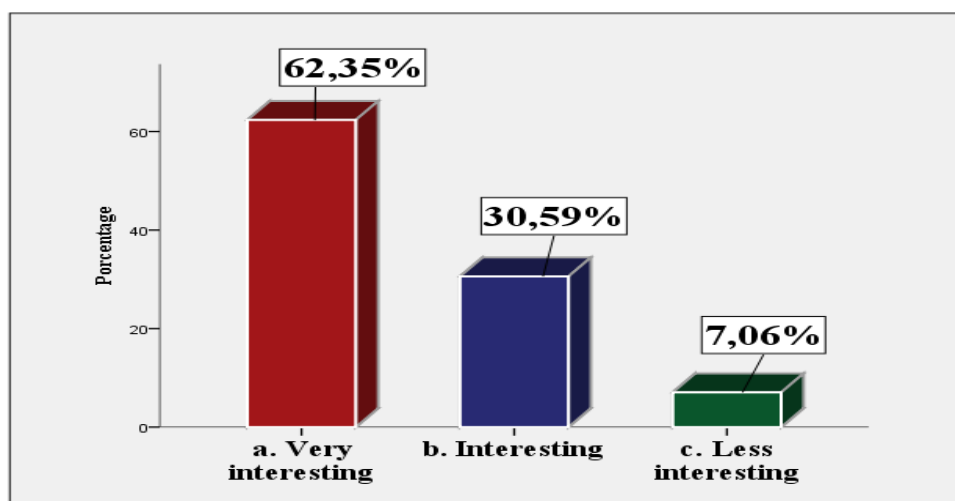


Diagram 9: The Pupils' Opinions about the Use of Multimedia in the Classroom

The results obtained from question 9 demonstrate that the majority of pupils representing (62.44%) have found the lesson very interesting when it is presented through multimedia, while also 26 pupils representing (30.6%) have considered it interesting. On the other hand, only 6 pupils of the total number of the respondents, think that multimedia makes the lessons less interesting.

1.3. Section three: Pupils' Opinions about the Effectiveness of Multimedia in enhancing the Reading Comprehension skill

Q10. Do you think that the use of multimedia help you enhance your reading comprehension?

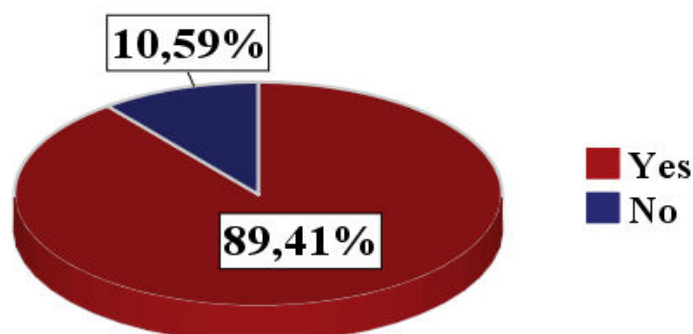


Diagram 10: The Pupils Opinions about the Use of multimedia to Enhance the Reading Comprehension

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The results obtained from the question 10 show that the majority of pupils (76) representing the percentage of 89.4 % have thought that multimedia help them enhance the reading comprehension skill, while only (9) pupils representing 10.6 % have asserted that those materials do not actually help them. Therefore, one can notice that most of the respondents feel that the use of educational technology has positive effects on their reading comprehension skill.

Q11. Does multimedia help you highlight the key words and the main ideas of the text?

- a) Yes b) No

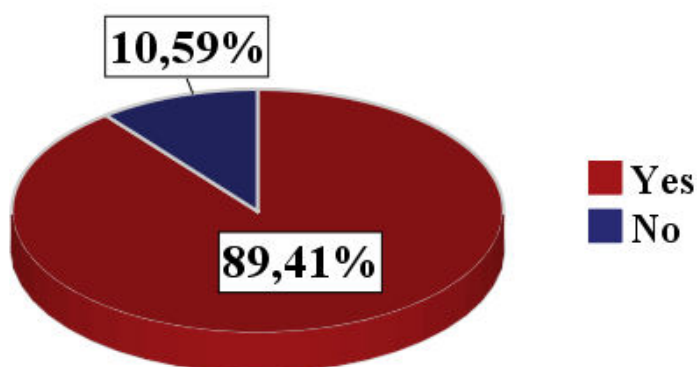


Diagram 11: The Role of Multimedia in highlighting the Key words and the Main Ideas of the Text

As depicted in the above pie chart, (75) of pupils representing a percentage of 72 % have confirmed that the use of multimedia makes it easy for them to highlight the main ideas and the key words of the text .However, (10) pupils making up of 28% have thought that those materials do not help them.

Q12. Do you think that multimedia makes the reading comprehension more enjoyable?

- a) Yes b) No

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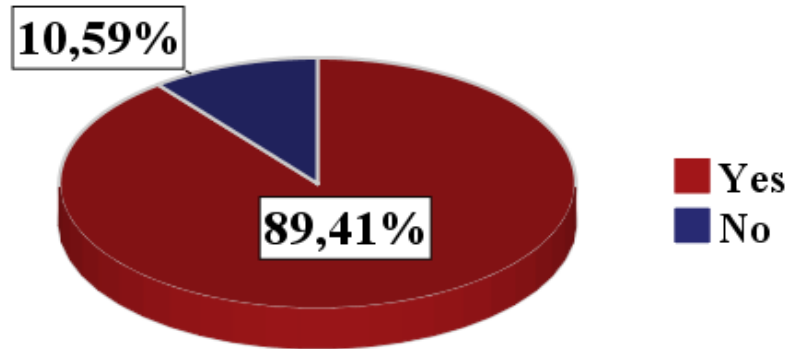


Diagram 12: Pupils' Opinions about the Use of Multimedia in making the reading comprehension enjoyable

From this pie chart, we note that the majority of the respondents representing 89.4 % have thought that the use of multimedia makes the reading comprehension sessions more enjoyable. However, numerical minority of nine respondents (10.6%) have thought the opposite.

Q13. Do you understand an explanation when it is presented in the form of? Why?

- a) Words alone
- b) Pictures alone
- c) Words and pictures

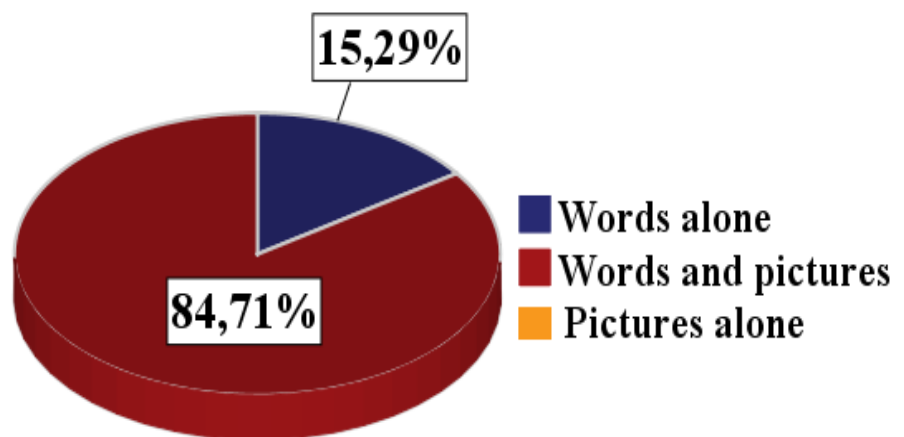


Diagram 13: The Pupils' Opinions about the Presentation of the Explanations

The pie chart above shows that, most of the respondents (72) representing the percentage of 84.7% have preferred an explanation that is presented through the combination of both words and pictures. In the other hand, only (13) pupils representing (15.3) % have said that they understand better through words alone. The majority of the pupils have viewed

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the combination of words and pictures as more helpful to understand and to get the meaning rapidly. Moreover, it gives them the opportunity to see and hear at the same time.

Q14. Do you understand when the words and pictures are presented?

- a) Successively b) Simultaneously

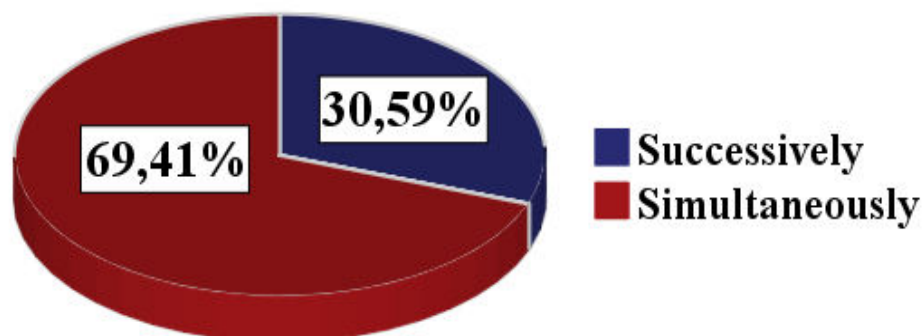


Diagram 14: The Pupils' Opinions about Learning with Words and Pictures

The results obtained from question 15 reveal that (59) pupils who make up 69.4% have confirmed that they understand better when the words and pictures are presented simultaneously, whereas (26) pupils representing the percentage of 30.6% have said that they understand better when they are presented successively .

Q15. Do you understand the text when it is performed through?

- a) Human voice b) Machine voice

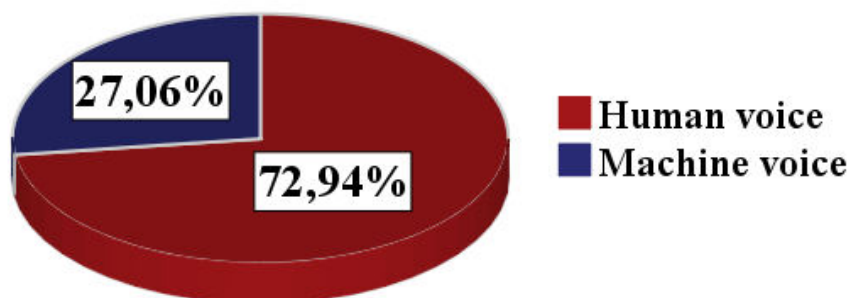


Diagram 15: The Pupils' Preferences to Understand a Text through Human Voice or Machine Voice

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Concerning question 16 the results indicate that the majority of pupils (62) representing the percentage of 72.9 % understand better when the text is performed through the human voice, and only (23) pupils representing 27.1 % prefer when the text is performed through machine voice.

Q16. What are the best multimedia tools in your opinion that can ameliorate your reading comprehension skill?

Concerning the question 17, which is open-ended, the third year pupils were asked about the most suitable multimedia material in their opinion that can ameliorate their reading comprehension skill. Most of the respondents have mentioned a great number of different technological devices including videos clips, pictures, audios, power point presentations, movies, songs, computers and smart phones as helpful and effective aids. In addition, some of them have also stressed the importance of internet and especially some effective websites such as YouTube and Google.

2. The Results of the Teachers' Structured Interview

Question 1: How long have you been teaching English?

This question aims to investigate the teachers' experiences, in other words, the number of years they have been teaching English. The answers of the 8 eight teachers differ from one to another. 2 of them stated that they have been teaching for 2 years, one of them for 4 years, one for six years, one for 3 years, 2 others have almost 13 years of experience while another teacher has been teaching for 15 years.

Question 2: Do you use multimedia materials in the classroom to teach English?

Five of the respondents affirmed that they use the different multimedia materials during teaching process, while the 3 other teachers stated that they never make use of such tools

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stating that multimedia gives a new and an exciting dimension to English learning but the equipments and facilities are not available.

Question 3: If yes, what types of multimedia do you use? And how often do you use them?

The five teachers revealed that the sole reliance on the textbooks for delivering a course is inadequate. Therefore, they use different other authentic materials to transmit the information effectively such as pictures, maps, type recordings, videos, computers and data show. They believe that such materials have positive effects on both teachers and pupils; however, all of the respondents stated that they do not use them usually and this is unfortunately due to the lack of access to the appropriate equipments.

Question 4: How familiar are the pupils with those materials?

The majority of the teachers confirmed that their pupils are very familiar with the different multimedia tools since they are growing up in the technology era. They stated that most of them present their projects using data show or computers, and many others use their smart phones during the instruction to make researches or look for more explanations on dictionaries.

Question 5: Do you advise your pupils to use multimedia materials even outside the classroom?

All the interviewees affirmed that they always support their pupils to use multimedia aids inside and even outside the classroom. Some of them argued that they advise them to watch movies, listen to native speakers to improve their English.

Question 6: During your reading comprehension session, do you use multimedia technology?

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The interview's results reveal that 5 teachers use multimedia materials during the reading comprehension session, while the 3 other teachers do not use them.

Question 7: Do you think that multimedia facilitate the pupil's reading Comprehension? How?

The majority of the English language teachers assert that multimedia really facilitate the pupils' reading comprehension. They argue that the audio visual materials make the explanation easier and give a clear image about the topic and therefore help the pupils' to deduce quickly the main ideas and understand the difficult concepts.

Question 8: Do multimedia tools help your pupils understand English texts? Explain.

The responses of the interviewees reveal that multimedia has become an effective technique that helps pupils understand English texts. According to the teachers, adding a picture or a video for instance to a text, attracts the pupils' attention first, and raises their motivation to participate and ask questions to comprehend the difficult terms and concepts.

Question 9: What do you think about the integration of multimedia technology in the teaching and learning process?

All the teachers agree that the integration of multimedia facilitate the teaching and learning process for both teachers and pupils, since it creates a motivating atmosphere and makes English classes more enjoyable, interesting and lively. In addition, multimedia now appears to become a necessary classroom resource that help meet the pupils needs and interests for its advanced, vivid and visual features .Moreover, according to the interviewees, the government should invest in the equipments and offer the required materials for all the schools of the country since they help both learners and teachers to achieve advantageous and positive outcomes and also gain both time and effort.

Presentation of The Findings

Conclusion

In this chapter, we have presented the results gathered from the two research instruments used in this study, the questionnaire which was administered to the third year pupils and the structured interview conducted with the EFL teachers. The statistics have shown positive attitudes of both teachers and pupils' participants towards the use of multimedia in EFL Classroom and its effectiveness in enhancing the reading comprehension skill. Thereby, the following chapter is devoted to the discussion of the main findings and a detailed information and interpretation will be provided.

Discussion

Introduction

The present chapter is devoted to discuss the main findings gathered from the two research tools: questionnaire and structured interview which were used in this work to investigate the effectiveness of the different multimedia devices in enhancing the pupils' reading comprehension skill .Therefore, it is divided into two sections, the first one is concerned with the discussion of the questionnaires' results which were administered to the third year pupils. As for the second section, it is devoted to the analysis of the data collected from the teachers' structured interview.

1. Discussion of the questionnaires' results

1.1. Pupils' opinions about learning English through multimedia

The objective of the first section of our questionnaire was to check the pupils' opinion about integrating the different multimedia devices during the learning process. The majority of the respondents have shown a positive attitude toward English language instruction through multimedia and expressed their appreciation as it has been expected, and revealed that pupils support the idea of incorporating the digital materials including videos and pictures as it can be seen from the results of the first question which confirm that only 32% prefer paper materials like books and handouts .This is may be because the Twenty first century is the era of technological endeavors and innovations and children today are surrounded by various types of technology in every aspect of their life and they are being raised in a digital world and technology has become a reality that cannot be ignored (Guedime and Benachaiba, 2012).

Question two in the pupils' questionnaire, was addressed to check if the different multimedia devices are used in the classroom during the learning process. The majority of the participants representing 68% confirmed that the technological devices are integrated to learn English; and to know which types of these materials are likely used, the pupils have

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mentioned videos, pictures, power point presentations , tape recorders and so on .The same question was asked to their teachers who confirmed in their turn that they use multimedia to facilitate the learning process, while some others have admitted that they rely only on textbooks. The possible explanations for the above findings are that pupils are not familiar with such materials because they used to study through traditional teaching methods, which relies on textbook as a first source of instruction in the classroom.

The answers of the third question, have revealed that The overwhelming majority believe that multimedia devices are very helpful during the lecture , since it makes the difficult concepts easier to understand and also raise their motivation to ask for more explanations and clarifications . This question is largely overlapping on question four of the questionnaire ,which tries to know if the pupils prefer to learn English with such materials or without them, and as it was expected 90% of respondents , as it is shown in pie chart 4, prefer to learn English by using the different multimedia resources , and to justify their choices, the pupils have cited some important arguments .First, Most of the respondents find that multimedia is one of the best educational techniques because it addresses more than one sense simultaneously, which gives them the opportunity to see and hear the information at the same time .In line with this idea Dong , Li (2011: 165) state that *“In the multimedia teaching, with eyes looking, ears listening, mouth speaking, hands writing, brains keeping in mind, students will greatly improve their passion for learning, leading to higher class efficiency”* Said differently, teaching with multiple representations facilitates and strengthens the learning process by providing several sources of information.Second, multimedia according to the pupils, help them acquire a new useful vocabulary that can enrich their background knowledge. In addition, there is an evidence that suggests that a mixture of words and pictures increases the likelihood that people can integrate a large amount of information (Mayer, 2001) . Moreover, the pupils did not forget to mention also that multimedia create a motivating and

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an enjoyable classroom environment. Lastly, several studies conducted mainly by Astleitner and Wiesner (2004) and Yarbrough (2001), have suggested that student satisfaction and motivation are higher in courses that use multimedia materials. In the other hand, the remaining respondents who represent only 9.4% prefer not to use multimedia in the classroom, and this can be related to the fact that they are not familiar enough with such materials and text books are more beneficial and effective.

1.2. Pupils' opinions about teachers' use of multimedia to learn English

The analysis of the findings obtained from the question 5 shown in pie chart (5) reveals that The majority of the respondents agree that technological materials are always needed in classrooms. These pupils believe that lectures become easier to understand when the teachers implement some authentic materials. In line with this idea, most the respondents representing 53% have pointed out that their teachers present the content of the courses through multimedia once a week and, in the other hand only a minority have claimed that they never use them.

The results obtained from question 6 demonstrate that 91.8% of the respondents agree that multimedia is effective in the classroom. In other words, Multimedia instruction gives the teachers the opportunity to present and explain the lesson in different ways including picture, sounds, video or animations which help the student to interpret and visualize the ideas and concepts contrarily to the traditional face-to-face lecture method, in this respect Mayer has stressed on the crucial role of multimedia stating that "*the promise of multimedia learning is that teachers can tap the power of visual and verbal forms of expression in the service of promoting student understanding*" (Mayer, 2003:128). Consequently, the majority of the pupils representing 62%, agree that multimedia attract their attention and makes the lectures more interesting. In this respect; Reeves (1998) explained that "*multimedia presentations are*

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engaging because they are multimodal. In other words, multimedia can stimulate more than one sense at a time, and in doing so, may be more attention-getting and attention-holding" (1998 : 23). That is to say, using different modes and ways of representation engage the learners to use more than one sense at the same time which increase their attention and concentration .Yan and Rongchun (2011) for their part, stress that multimedia teaching makes English classes more vivid, interesting and lively, which can therefore stimulate students' interest in learning and thus achieve a more satisfactory teaching results.

1.3. Pupils' Opinions About The Effectiveness of Multimedia In Reading Comprehension

The findings of the question ten (10) regarding the important role of multimedia in enhancing the reading comprehension skill , demonstrate that 89.4% of the respondents assert that using technology in the classroom can be very beneficial to increasing reading comprehension skill since the meaning is conveyed through dynamic combinations of various modes across written and spoken language, visual (still and moving image) and audios. In other words, multimedia influence the learners positively since it facilitates to a great extent the comprehension , by providing more authentic examples like: graphics, photos, animations and videos which help the pupils to interact with the topic and the presented text.

The results obtained from question 11 confirm that 72% of the respondents agree that multimedia help them highlight the main ideas and identify the key words which make them understand the text better, said differently , adding other new sources of information besides the printed text make the pupils get the meaning deeply in a very short period . In addition, presenting the lecture using different multimedia resources offer the opportunity for students to use both words and pictures, in this respect Mayer and Mereno (1998) have stated that The learners comprehend better when watching and listening, than when watching alone. For

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their part, Verhoeven and Prefetti (2008), have stressed that, the readers who have various sources of information read more comprehensively than the ones who use only the printed texts. In short, the pupils who use both channels (verbal and pictorial) during the learning process increase their ability to comprehend the text affectively.

Question five was addressed to know if the pupils understand better when the information is presented in the form of words or in the form of pictures or in the form of words and pictures together. The majority of the pupils representing 84.7% stated that the information becomes more clear when words and picture are mixed together. This goes in line with Mayer's Multimedia Principle which is considered as the fundamental principle in the cognitive theory of multimedia learning, suggest that people learn better from words and pictures than from words alone, in other words presenting an explanation using two models of representation makes it easier for people to understand and process more information. The pupils answers confirm Mayer's theory which is founded on the idea that students can learn more deeply from well-designed multimedia messages consisting of words and pictures than from more traditional modes of communication involving words alone.

The results are consistent with the predictions of the CTML which suggest that the use of both words and pictures lets the brain processes more information in working memory. To justify their choices, some pupils have argued that multimedia give them the opportunity to use a variety of senses including hearing and seeing, and the explanation become easier to comprehend when the words are complemented with images and illustration.

Another principle of Mayer's theory is consistent with the result of the pie chart (15) reveal that 69.4% of the pupils understand better when the words and pictures are presented simultaneously which confirm the Mayer's Temporal Contiguity principle. This latter, suggest that People learn better when corresponding words and pictures are presented

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simultaneously rather than successively. The pupils agree that they get a better learning results when images and related text are contiguous or presented at the same time rather than separate in time, Mayer and Gallini (1990) in this respect proved that students who read a text with illustration placed near the corresponding words and presented simultaneously were more successful in problem solving and knowledge acquisition than students who simply read a text without any illustrations. Said differently, when the corresponding words and pictures are presented simultaneously, the learners are more likely to hold the mental representation of both pictures and words in the working memory at the same time, which give them the opportunity to build the mental relation and connection between the two models pictorial and verbal.

The result obtained from the question 16, has revealed that 72.9% of respondents actually prefer the text to be performed through a human voice rather than machine voice. Mayer (2009) suggests that people learn better when the narration in multimedia lessons is spoken in a friendly human voice rather than a machine voice. This can be related to fact that the teachers' voice can create a friendly environment that encourages the learners to ask for more clarifications, consequently pupils for instance can ask their teachers to repeat or explain the difficult concept while explaining.

In the last question of our questionnaire, the pupils were given the opportunity to mention the best multimedia materials that in their opinion help them enhance their reading comprehension skill . Most of respondents have mentioned some effective tools including videos , pictures , laptops , audios ,songs and smart phones .

2. The Discussion of the Teachers' Structured Interview

The findings of the structured interview that we have conducted with the eight secondary school teachers ,have revealed that 3 of them have been teaching English for more

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than 13 years, while the other 5 teachers have only an experience that is between 2 and 6 years in the domain. The 5 teachers who have a short period of experience have confirmed that they use different multimedia resources in the classroom while the other 3 teachers stated that they rely only on the textbooks and the traditional methods of teaching, and this can be related to the fact that some teachers are used to doing things their way, using pen and papers. In addition, some others are aware of the benefits of multimedia but they actually do not know how to use them. In other words, some teachers' illiteracy in multimedia use is the main factor that prevents them from using it in the classroom.

In response to the same question, the 5 teachers who confirmed that they use multimedia during the learning and teaching process, have mentioned some effective tools that have a positive impact on students' achievements, such as pictures, maps, type recordings, videos, computers and data shows. The interviewees have also revealed that they do not usually use those tools, and this is due to the lack of access to the appropriate materials and adequate supports. One participant has stated that *there is no doubt that the use of multimedia improves the quality of learning but unfortunately there is a lack of the needed materials*. Another teacher said that the Government should encourage the use of multimedia by providing all the required facilities and also design a curriculum with a view to incorporating this new instructional strategies. Another reason that can be suggested is the overloaded program and curriculum that do not give time to teachers to make use of such materials.

In relation to how familiar are their pupils with multimedia materials, the teachers did not hesitate to confirm that they are very familiarized with such materials and that they show a positive attitude towards its use. Today, multimedia are omnipresent in the 21st Century and take part of every aspect of the students' lives. In fact, this generation was given many names. Prensky, (2001) described them as "digital natives", Tapscott (1998) "the

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NetGeneration” , Rushkof, (2006) for his part used the name “Screenagers” as an evidence that students feel comfortable with the use of technological devices in the classroom as they are growing up in a digital world. To support this idea one teacher has stated that the majority of his pupils possess Smart phones that they use even in the classroom to look for the meaning of the difficult concepts which is a very useful and interesting technique. In this respect, the interviewees confirm that they encourage their pupils to use the new technologies outside the classroom since they offer an exciting opportunities , in other words, listening to music , watching videos for instance can help them improve their English language.

Based on the answers gathered from the interviews, the 5 teachers who use multimedia during the learning and teaching process , have confirmed that adding a picture, a video or any other authentic material to a text makes the reading comprehension easier. in this respect , Research conducted by Akbulut, 2007; Jones & Plass, 2002; Nikolova, 2002 showed that the combination of textual and visual information is more effective in facilitating vocabulary acquisition and text comprehension than definitions of foreign language words alone .

Today, technology offers a big range of different materials that teachers can employ in the foreign language classroom to enhance their pupils’ reading comprehension skill. this latter is perceived as a very complex and difficult skill that consist of extracting the required information from the text as efficiently as possible (Grellet 1981). In this respect , the majority of the teachers consider multimedia as a new pedagogical tool that positively influences the pupils’ understanding and outcomes . The integration of such materials offer a variety of flexible supports including text-to-speech, voice recognition, animation, music and sound effects, embedded dictionaries which attracts the pupils’ attention, improve concentration and strengthens their motivations to participate and ask questions in order to get the meaning of the text. In other words, the use of sounds , pictures, and animated pictures

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or videos in addition to text play an important role in vocabulary acquisition and in overall text comprehension.

with regard in what is mentioned in Mayer's (1997) cognitive theory of multimedia learning, effective comprehension and meaningful learning occurs when *"learners select relevant visual and verbal information from what is presented, organize the pieces of information into coherent visual and verbal mental representations, and integrate these newly constructed visual and verbal representations with others"* (p. 4) Thus, Verhoeven and Perfetti (2008) for their part, suggest that the learners read comprehensively when information is presented in the two channels — visual and the auditory channels.

The answers of last question are approximately the same. At the end of the interview, the teachers have showed again their positive attitude towards the integration of multimedia in the learning and teaching process. All of them agreed that, presenting the lessons by the use of several supporting authentic materials appears to stimulate the pupils' motivation and interest and rises their attention to catch the meaning of the text. In this respect one of them have stated *"personally, it might be good as they could catch learners' attention and insert the notion of technological evolution in learners' minds, thus enable them to learn well"*. Therefore implementing such materials facilitates the task for both learners and teachers. In addition, multimedia create an enjoyable and interesting atmosphere where the pupils feel comfortable to participate and interact in the classroom. Before ending the interview, the majority of the teachers have stressed again that multimedia teaching is a new effective pedagogical strategy that help gain both time and effort, therefore, it is important to have access to the different materials and to be equipped with the required facilities and the needed equipments

Conclusion

In this chapter, we have analyzed and discussed the findings of the main data gathered through the two research instruments, the pupils' questionnaires and the teachers' structured interviews .Hence , the analysis of the findings, has revealed that both teachers and pupils show positive attitudes towards the use of multimedia in the EFL classroom. In addition, these results confirm our hypothesis about effectiveness of those materials in enhancing the reading comprehension skill.

General Conclusion

Introduction

The present study has investigated the crucial role of multimedia in enhancing the third year pupils' reading comprehension skill. Our research took place in two secondary schools of Tizi Ouzou , Abbane Remdhane and Fatma N'Soumer .This study has aimed primarily , to check whether the different multimedia resources are used during the learning and teaching process , then shed light on the benefits of such materials on the pupils' reading comprehension skill.

For the sake of answering the advanced research questions and confirming or refuting the hypotheses suggested in general introduction. The research has relied on a mixed methods approach combining both the qualitative and quantitative research methods .Thus we have used two research instruments to collect the needed data: a questionnaire administered to eighty five (85) third year pupils and a structured interview conducted with eight (8) EFL teachers.

On the one hand , we have used computer software (SPSS) for the quantitative data analysis in order to obtain a statistical results. On the other hand , Qualitative Content Analysis has been used to interpret the data gathered from the open ended questions of the pupils' questionnaire and teachers' structured interview.

In this dissertation, we have relied on the cognitive theory of multimedia learning (CTML) as our theoretical framework. this theory which was suggested by Richard E Mayer, is based on the idea that people learn more deeply from words and pictures than from words alone, which is referred to as the multimedia principle (Mayer 2005) .In addition (CMLT)seeks to explain the processes that take place in the minds of learners during meaningful learning from multimedia instruction .Hence, this theory provided us with the necessary information to analyze and answer the research questions and hypothesis.

General Conclusion

The analysis of the data has revealed that the different multimedia tools including pictures, videos, tape recorders and data shows, are generally used during the learning and teaching process in the EFL classrooms. It has also indicated that both pupils and teachers show positive attitudes regarding its integration. In addition, the results gathered from the questionnaires and structured interviews, show that multimedia recourses are considered as a new effective and relevant strategy that help pupils enhance their reading comprehension skill. That is, multimedia helps learners understand the difficult words and concepts and learn new vocabulary while reading English texts. Add to this, most of the respondents claimed that they prefer to learn by using those tools, since they offer them the opportunity to see and hear at the same time and deduce the meaning in a very short period of time. Moreover, the answers of the majority of the pupils proved that using such materials do not only facilitate the comprehension but also create a lovely enjoyable environment that motivate them to understand deeply.

However, we cannot deny that this study has some limitations. The first limitation is time constraints to conduct a classroom observation with the pupils to gather a more reliable data. The second limitation was that the results of this investigation cannot be generalized to all the pupils or secondary schools, since our investigation took place in only two secondary schools and with only third year graders. Another obstacle that can be mentioned, is the lack of the appropriate materials and facilities that prevent some teachers from teaching through those materials.

Moreover, The implications of the results of the present study are quite clear. That is to say, the integration of multimedia in the classroom has become a necessity, consequently, all the schools of the country should be equipped by the appropriate tools and provide the needed materials that facilitate improve the quality of teaching and learning.

General Conclusion

We hope that the results reached through this investigation will open opportunities for further research in this area of study .In this sense , this research can be used to measure other language skills such as speaking, listening or writing using for instance other methodological investigations ,with other participants like middle schools pupils or university students

Bibliography

- Akbulut, Y. (2007) *Variables Predicting Foreign Language Reading Comprehension and Vocabulary Acquisition in a Linear Hypermedia Environment*, The Turkish Online Journal of Educational Technology (TOJET), 6 (1), 1-7
- Aloraini, S. (2012) *Impact of Using Multimedia on Students' Academic Achievement in the College of Education at King Saud Journal of King Saud University - Languages and Translation*. 24 (2), July 2012, 75-82. [Online] Available: University <http://www.sciencedirect.com/science/article/pii/S2210831912000033#>
- Anderson, R. C., & Pearson, P. D. (1984). *A schema-theoretic view of basic processes in reading comprehension*. In P. D. Pearson, R. Barr, M. L. Kamil, & P. Mosenthal (Eds.), *The handbook of reading research* (pp. 255-292). New York: Longman cited in Dorothy M. Chun Jan L. Plass (1997) *RESEARCH ON TEXT COMPREHENSION IN MULTIMEDIA ENVIRONMENTS*. University of California, Santa Barbara. *Language Learning & Technology*, 60-81
- Astleitner, H. and Wiesner, C. (2004) *An Integrated Model of Multimedia Learning and Motivation*, Journal of Educational Multimedia and Hypermedia, 13, 3–21.
- Brooks, D. W. (1997). *Web-teaching: A guide to designing interactive teaching for the World Wide Web*. New York: Plenum cited in *Using Multimedia to Motivate Students in EFL Classrooms: A Case Study of English Master's Students at Jijel University, Algeria* Bouzar Mohammed Amine¹, Chellali Benachaiba² and Boutkhil Guemide³
- Boster, F. J., Meyer, G. S., Roberto, A. J. & Inge, C. C. (2002). *A Report on the effect of the united streaming Application on Educational Performance*. Retrieved November 28, 2005, from United Learning, Discovery Education at: <http://www.unitedlearning.com/images/dstreaming/evaluation.pdf>. cited in *The Role of Educational Cartoons in Enhancing Children's English Vocabulary Acquisition in Algerian Private Schools*. Case Study: Bridge Way World Elementary School of English in TiziOuzou AMRANI Ghania
- Baddeley, A. D and Hitch, G. J. (1974) *Working Memory*. The psychology of learning and motivation 8, 47-89.
- Birsch JR (2011) *Multisensory Teaching of Basic Language Skills*. 3rd ed. Baltimore, MD: Paul H Brookes Publishing Company.
- Block, C. C. (2004) *Teaching Comprehension: The Comprehension Approach*. Boston, MA: Pearson Education
- Brown, H. (2000) *Principles of Language Learning and Teaching*: 4th ed. New York: Addison Wesley Ltd.
- Brown, H. D. (2001). *Teaching by principle* cited in Ghanizadeh, Afsaneh, Razavi, Azam (2015) *The impact of using multimedia in English high school classes on students' language achievement and goal orientation*. English Department, Imam Reza International University, Mashhad, Iran. *International Journal of Research Studies in Educational Technology* (4) 2, 31-42
- Clarke, D.F. & Nation, I.S.P. (1980). *Guessing the meanings of words from*

Bibliography

context: strategy and and techniques system 211-220 cited in Zul Astri, Isnaeni Wahab (2018) *THE EFFECT OF READING TEACHING MATERIAL FOR DIFFERENT LEARNING STYLES IN IMPROVING STUDENTS' READING COMPREHENSION*. Jurnal Bahasa Lingua Scientia 10 (2)

- Clark and Mayer (2016). *E-Learning and the Science of Instruction*, 4th ed. Hoboken, NJ: Wiley.
- Carnie. (1990). Doughlas, Jerry Silbert, and Edward Kameenui. *Direct Interaction Reading Second Edition USA*. Menrill Publishing Company. Cited in THE STUDENTS' READING COMPREHENSION IN SUMMARIZING TEXT AT THE SECOND YEAR STUDENTS' OF SMA NEGERI 14 MAKASSAR (A Descriptive Quantitative Research at Sma Negeri 14 Makassar Class XI Ipa 2) ARWINI ABIDIN
- Daiek, D, B. and Anter, N.M. (2004) *Critical Reading for College and Beyond*. New York: McGraw-Hill
- Dorothy M. Chun (1997) *Research on Text Comprehension in Multimedia Environments*, University of California, Santa Barbara, Jan L. Plass, University of New Mexico.
- Dubin, F. (1982) Whatever EFL Teacher should know about Reading. English teaching forum, 20(3), 14-16-23.
- Eva .W, B and Mona .H .(2017) *Reading from Multimedia Materials: Benefits of Non-congruent Pictures on Reading Comprehension for Dyslexic Readers*, Department of Pedagogical Curricular and Professional Studies, Gothenburg University, Sweden, TOJET: The Turkish Online Journal of Educational Technology – January 2017,16 (1).
- Graves, B. B. (1998). *Teaching Reading in the 21st Century*. Needham Heights, MA: Allyn and Bacon. Cited in *A Study of Factors Affecting EFL Learners' Reading Comprehension Skill and the Strategies for Improvement* Abbas Pourhosein Gilakjani 1 & Narjes Banou Sabouri2. Lahijan Branch, Islamic Azad University, Lahijan, Iran.
- Gourav,M .(2012) *Multimedia in Teacher Education: Perceptions & Uses*, Sri Sai College of Education, Badhani, Pathankot,Punjab, India, Journal of Education and Practice.
- Grabe, W. (1988) *Interactive Approaches to Second Language Reading: Reassessing the term "interactive"*, Cambridge University Press, 56-70.
- Grabe, W. (2009) *Reading in a Second Language: Moving from Theory to Practice*. New York:Cambridge University Press.
- Grellet.F. (1981). *Developing Reading Skills: A Practical Guide to Reading Comprehension Exercises* (pp 58-59).Cambridge University Press cited in Rouai Souhila (2014) *The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students* UNIVERSITY KASDI MERBAH OUARGLA

Bibliography

- Grellet.F. (1999). *Developing reading skills*(pp 2-25). NY: Cambridge University Press cited in Rouai Souhila (2014) *The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students*. UNIVERSITY KASDI MERBAH OUARGLA
- Guariento, W. & J. Morely (2001) *Text and task authenticity in the EFL classroom*. *ELT Journal*, 55 (4), 347-353.
- Guemide, B.and Benachaiba, C. (2012) *Exploiting ICT and E-Learning in Teachers Professional Development in Algeria:the Case of English Secondary School Teachers*. *Turkish Online Journal of Distance Education-TOJDE*, 13, 1302 - 6488.
- Hanson, M. Porter, Rutherford, Quinn, & Marthur. (1996). *Self-management through self-monitoring*. In K. Jones & T. Charlton.(Eds.), *Overcoming learning and behaviour difficulties: Partnership with pupils* . London: Rutledge cited in Rouai Souhila (2014)*The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students*. UNIVERSITY KASDI MERBAH OUARGLA
- Ivers, K. and Barron, A. E. (2002). *Multimedia Projects in Education*. (Second Edition) Englewood, CO: Libraries Unlimited cited in *Use of Computer-Based Learning Multimedia* at English Departement of Universitas Sembilanbelas November Kolaka Kadaruddin Kadaruddin
- Jones, R. (2006). *Strategies for reading comprehension: Summarizing*. Reading Quest cited in Nguyen Buu Huan, Nguyen Thi Kim Ngan (2017) *SUMMARIZING STRATEGY:POTENTIAL TOOL TO PROMOTE ENGLISH AS A FOREIGN LANGUAGE (EFL) STUDENTS'READING COMPREHENSION IN A VOCATIONAL SCHOOL, VIETNAM*. Can Tho University, Viet Nam, *European Journal of Education Studies* (3) 8.
- Jeffrey ,T.C. (2000) *The Effect of Presentation Media on Student Reading Comprehension*, Western Michigan University Kalamazoo, Michigan.
- Jonasses, D. (2000). *Computers as Mindtools for Schools*. Upper Saddle River, NJ: Merrill.
- Kate ,C. , Jane ,O. (2014) *Reading comprehension and vocabulary: Is vocabulary more important for some aspects of comprehension?*, Lancaster University, UK.
- Komiya, R.and Ng, K. H (2000). *Introduction of Intelligent Interface to Virtual Learning Environment*. Paper presented at the Multimedia University International Symposium on Information and Communication Technologies 2000 (M2USIC'2000), October 5-6, Petaling Jaya, Malaysia. Cited in *Use of Multimedia for Teaching in Nigerian University System: A Case Study of University of Ibadan* A.B. Oshinaike and S.R. Adekunmisi
- Laura ,S. (2016) . *An Investigation of Multimedia Instruction, the Modality Principle, and Reading Comprehension in Fourth-Grade Classrooms*, the University of SAN FRANCISCO.

Bibliography

- Lindstrom, R. (1994). *The Business Week Guide to Multimedia Presentations: Create Dynamic Presentations That Inspire*. New York: McGraw-Hil cited in *Integrating multimedia into the Malaysian classroom: Engaging students in interactive learning* Tse-Kian Neo & Mai Neo - Multimedia University, Malaysia - kneo@pc.jaring.my
- Li, X. (2009). *The Advantages and disadvantages of Multimedia Teaching*. Chinese Journal of Electric Power Technique, 4, 165.
- Mohammed Djemoui SABER . (2018). *The Impact of the Teacher-centred Pedagogy on Today's learners in Algerian Schools*. Annales des lettres et des langues. Faculté des Lettres et des Langues . Université Mohamed BOUDIAF. M'Sila. Algérie
- Mayer,R,E. (2009) *Multimedia learning*.2nd Ed.New York :Cambridge University Press
- Mayer, R.E & Moreno, R (2003). *Nine Ways to reduce Cognitive Load in Multimedia Learning*. Education Psychologist, 38(1):43-52.
- Mayer, R. E.(2003) *The Promise of Multimedia Learning: Using the same Instructional Design Methods across Different Media, Learning and Instruction*, 13 (2), 125-139
- Mayer, R. E., and Moreno, R. (2002) *Aids to Computer-Based Multimedia Learning. Learning and Instruction*, 12(1), 107-119.
- Mayer, RE (2002) Cognitive Theory and the Design of Multimedia Instruction: An Example of the Two-Way Street between Cognition and Instruction. *New Directions for Teaching and Learning*, 89,55-71
- Mayer ,R,E, and Moreno,R. (2002).*Animation as an Aid of Learning*. Plenum Publishing Corporation.
- Mayer, R,E. (2001).*Cognitive Theory of Multimedia Learning : The Cambridge Handbook of Mutimedia Learning* .New York.Cambridge University Press .
- Mayer, R. E. (2000). *Multimedia Learning*, Cambridge, UK: Cambridge University Press.
- Mayer, R.E & Moreno, R (2000). *A cognitive theory of multimedia learning: Implications for design principles*. Available at <http://www.unm.edu/~moreno/PDFS/chi.pdf>. Accessed on 1 March 2019.
- Mayer, R. E. and R. Moreno. (1998). A Split-Attention Effect in Multimedia Learning: Evidence for dual processing system
- Mayer, R. E. & Gallini, J. K. (1990). When is an illustration worth ten thousand words? *Journal of Educational Psychology*, 82 (4), 715-726. <http://dx.doi.org/10.1037//0022-0663.82.4.715>
- Mayer, R. E. (1984) *Aids to Text Comprehension*. Educational Psychologist, 19, 30-42.

Bibliography

- Michael, D.P. (2016) *The Effect of Three Reading Comprehension Strategies on Reading Comprehension when Reading Digital Informational Texts*, Martin Luther College New Ulm, MN.
- Mohammed ,A.(2014) *Improving Reading Comprehension for Saudi Students by Using the Reading Aloud Strategy*, Department of Curriculum and Instruction State, University of New York at Fredonia, Fredonia, New York.
- Moreillon, J (2007). *Collaborative Strategies for Teaching Reading Comprehension: Maximizing Your Impact* cited in Rahmah: *STUDENTS' COMPETENCE IN PREDICTING PICTURE ON READING TEXT AT SENIOR HIGH SCHOOL*. Universitas Negeri Medan
- M. Neo and T. K Neo "*Multimedia Learning: Using Multimedia as a platform for instruction and learning in higher education*". Multimedia University International Symposium on Information and Communication Technologies 2000 (M2USIC'2000), PJ Hilton, October 5-6,2000, PP S3-1.1 - 1.4 cited in Hilal Almara'beh, Ehab F. Amer and Amjad Sulieman (2015) *The Effectiveness of Multimedia Learning Tools in Education*. King Saud Bin Abdulaziz University for Health Sciences, College of Sciences and Health Profession, Riyadh, Kingdom of Saudi Arabia. International Journal of Advanced Research in Computer Science and Software Engineering (5) 12
- Magliano, J. P., Baggett, W. B., Johnson, B. K., & Graesser, A. C. (1993). *The time course of generating causal antecedent and causal consequence inferences*. *Discourse Processes*, 16.35-53 cited in Rouai Souhila (2014) *The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students*. UNIVERSITY KASDI MERBAH OUARGLA
- Muresan, Raul C. (2004) *The Coherence Theory: Simple Attentional Modulation Effects*. Retrieved from <http://www.raulmuresan.home.ru>.
- Neo, M & Neo, T. K. (2000) *Multimedia Learning: Using multimedia as a platform for instruction and learning in higher education*. Multimedia University International Symposium on Information and Communication Technologies 2000 (M2USIC'2000), PJ Hilton.
- Neo, M., & K. Neo (2001) *Innovative Teaching: Using Multimedia in a Problem-based Learning Environment*. *Educational Technology & Society Education*,4(4) .
- Nikolova, O. R. (2002) *Effects of Students' Participation in Authoring of Multimedia Materials on Student Acquisition of Vocabulary*. *Language Learning & Technology*, 6 (1), 100-122.
- Oxford. (2006). *Word Power Dictionary*, 717. New York: Oxford University press cited in Rouai Souhila (2014) *The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students*. UNIVERSITY KASDI MERBAH OUARGLA
- Ogunbote, K.O.; &Adesoye, A.E. (2006). *Quality assurance in Nigerian academic libraries networked multimedia services*. *Journal of Library and Information Science*, Vol. 3. No. 1 & 2 pp. 100-111 cited in *The Effectiveness of Using Multimedia in Improving the Students' Reading Comprehension in English Text* Anjar Kusuma

Bibliography

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- Paivio, A. (1986). *Mental representation: A dual-coding approach* New York: Oxford University Press cited in Dorothy M. Chun, Jan L. Plass (1997) *RESEARCH ON TEXT COMPREHENSION IN MULTIMEDIA ENVIRONMENTS* University of California, Santa Barbara. 60-81
- Perfetti, C. A. (1999). *Comprehending Written Language: A Blueprint of the Reader*. In C. M. Brown, & P. Hagoort, *The Neurocognition of Language Processing*, London: Oxford.167-208
- Plass, J. L., Chun, D. M., Mayer, R. E., and Leutner, D. (1997). *Supporting Visual and Verbal Learning Preferences in a Second Language*. *Multimedia Learning Environment*.
- Pearson, P. D. (2000). *Reading in the 20th century* cited in P. David Pearson Gina N. Cervetti (2017) *The Roots of Reading Comprehension Instruction* In S. E. Israel (Ed.), *Handbook of research on reading comprehension, 2nd Edition* (pp. 12-56). New York, NY: The Guilford Press.
- Pressley, M (2000) *Comprehension Instruction: What Makes Sense Now, What Might Make Sense Soon* .*Handbook of Reading Research, 3*, New York: Longman.
- Reeves, T (1998) *The Impact of Media and Technology in Schools: A Research Report prepared for The Bertelsmann Foundation*. Retrieved on May 8, 2002.
- Richard .E,R, (2012). *Temporal Contiguity Principle*, Cambridge Core, viewed 4 July 2019, <https://www.cambridge.org/core/books/multimedia-learning/temporal-contiguity-principle/2B975B185589B381663F342F0363515F>
- Roblyer, M.D. and Edwards, J. (1998). *Integrating Educational Technology into Teaching (second edition)*. New Jersey: Merrill/Prentice-Hal cited in *Integrating multimedia into the Malaysian classroom: Engaging students in interactive learning* Tse-Kian Neo & Mai Neo - Multimedia University, Malaysia - kneo@pc.jaring.my
- Rivers, Wilga.M. (1981). *Teaching Foreign Language Skills in a Foreign Language Skills*. Chicago: University of Chicago Press.
- Säljö, R. (1999) *Learning as the Use of Tools: a Sociocultural Perspective on the Human-Technology Link. Learning with Computers:Analysing Productive Interaction*. London: Routledge, 144-161.
- Schnotz, W and Lowe, R(2003) *External and Internal Representations in Multimedia Learning*. *Learning and Instruction*, 13, 117-123.
- Smith, Richard J. and Johnson, Dale D. 1980. *Teaching Children to Read*. Second Edition. USA: Addison-Wesley Publishing . cited in *IMPROVING THE STUDENTS'*

Bibliography

READING COMPREHENSION THROUGH PREDICTING STRATEGY AT THE SECOND YEAR OF MTS. AISYIAH SUNGGUMINASA GOWA A. SUCIARTI AK. SOLONG

- Sweller, J. (2005). *Implications of cognitive load theory for multimedia learning*, In *The Cambridge Handbook of Multimedia Learning*, ed. R. E. Mayer. New York: Cambridge University Press.
- Tway, L. (1995). *Multimedia in Action. MA: AP Professional*. cited in *Integrating multimedia into the Malaysian classroom: Engaging students in interactive learning* Tse-Kian Neo & Mai Neo - Multimedia University, Malaysia - kneo@pc.jaring.my
- Tovani, C. (2000). *I read it, but I don't get it: Comprehension Strategies for Adolescent Readers*. Portland: Stenhouse Publishers
- Warschauer, M. and Healey, D. (1998). *Computers and language learning: an overview*. *Language Teach.* 31, 57-71. Cited in *Computer Assisted Language Learning (CALL)* Massoud Rahimpour Australia and Iran
- Wilcox, B., Morrison, T., and Oaks, D. (1999). *Computer Corpora and Authentic Texts: Toward more effective Language Teaching*. *Reading Research and Instruction*, 38(4), 415-423.
- Yarbrough, D. N. (2001). *A comparative analysis of student satisfaction and learning in a computer-assisted environment versus a lecture environment*. *Journal on Excellence in College Teaching* ,12, 129–147.
- Zhen, Z. (2016). *The Use of Multimedia in English Teaching* ,14(3) 182-189. <http://www.davidpublisher.org/Public/uploads/Contribute/56ef6fae3626c.pdf> (June 12,2017)
- Zimmermann (2009), 23 cited in Rouai Souhila (2014) *The Use of Reading Strategies in Improving Reading Comprehension The case of First Year LMD English Students* UNIVERSITY KASDI MERBAH OUARGLA

1. Presentation of The results of The Pupils' Questionnaire

1. Results of Section One: pupils' opinions about learning English through Multimedia

Q1: Do you prefer to learn English using?

- a) Paper materials b) Digital materials

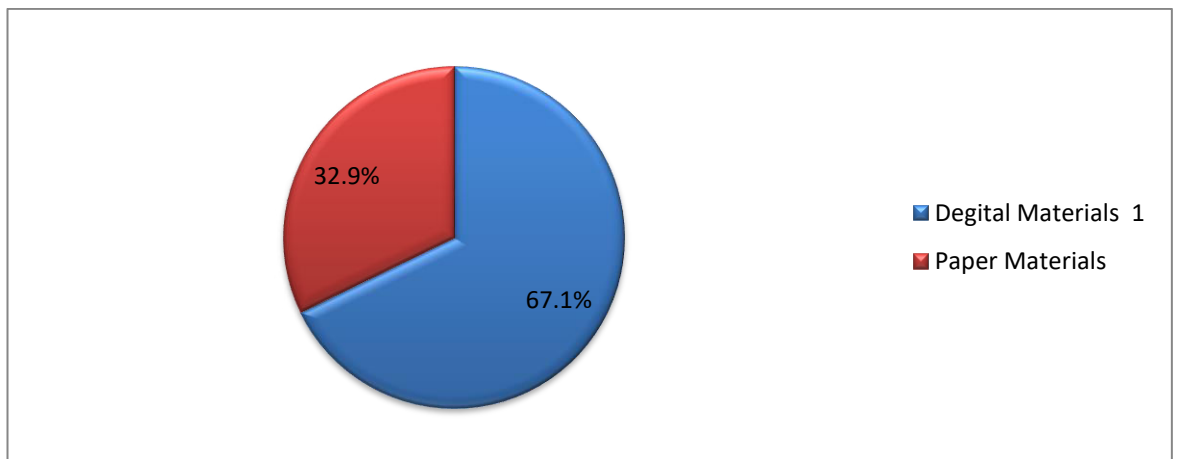


Figure 1

The first question aimed at knowing whether the pupils prefer to learn English using digital materials or paper materials. 57 of the respondents representing (67,1%) prefer to use digital tools like pictures and videos while only 28 pupils representing 32,9 % use papers materials like handouts and books.

Q2: Are multimedia aids used in your classroom?

- a) Yes b)No

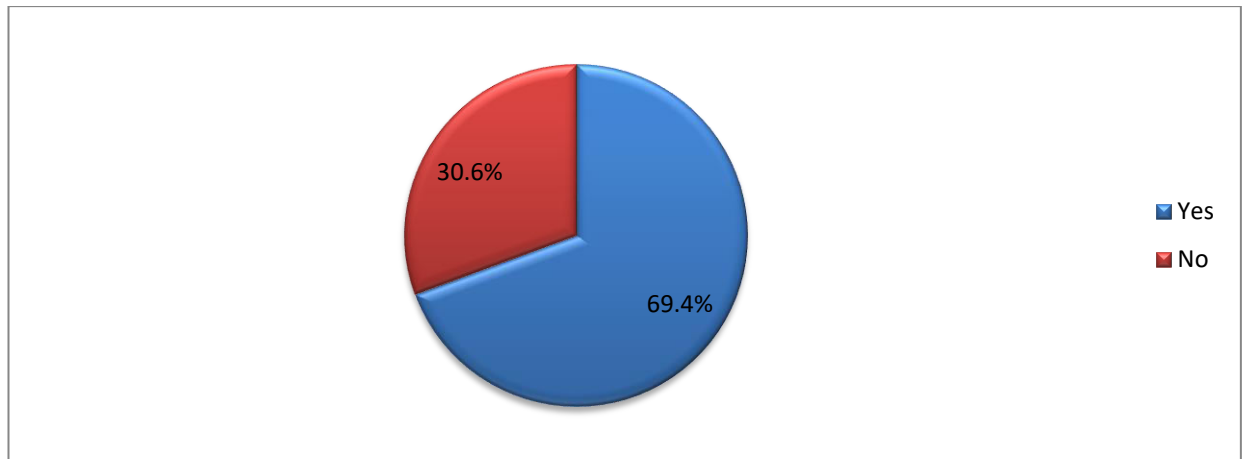


Figure 2

The second question tries to check if the different technological tools are used to learn English. 59 pupils representing 69.4 % affirmed that multimedia is used in their classrooms, while, 26 of the participants representing the percentage of 30.6% state that they do not use them.

If yes, what are the technological tools that you usually use in your Classroom ?

The students in this question were required to choose what types of materials are usually used in the classroom. Fourteen students (%) stated that videos are the most used tool.. number students, representing the percentage of (%), confirmed that pictures are an another important tools during the lecture. number other pupils who make up % state that that tape recorders are also used in addition to these tools. Moreover, the respondents have also mentioned other materials like laptops, data show, PowerPoint presentation and others.

Q3. Does multimedia help you understand the lessons better?

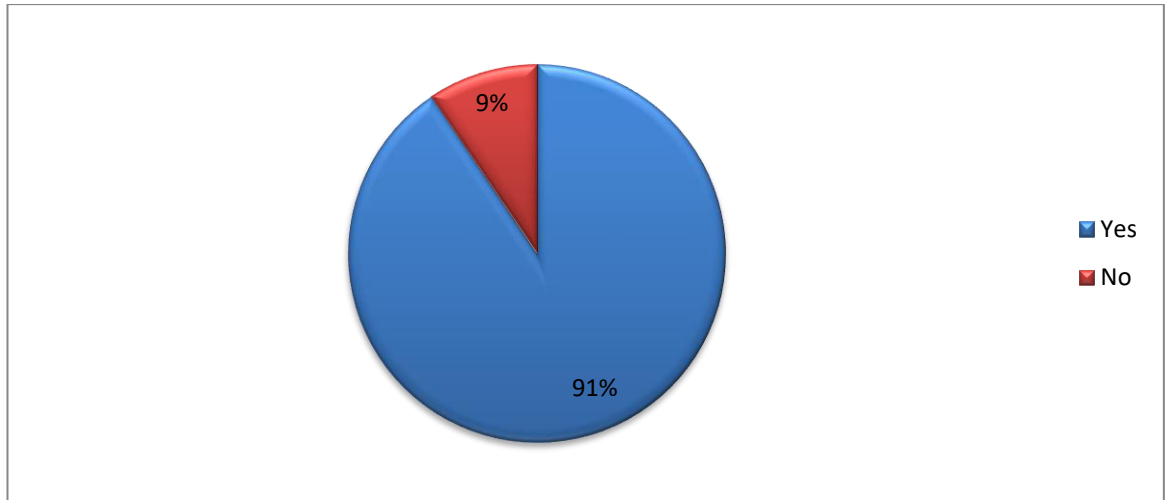


Figure 3

When the pupils were asked whether multimedia help them understand the lesson better, the majority of them (77), representing the percentage of (90.6%), confirmed that the lessons become more easier to understand when using the educational technology and only eight (8) respondents, representing the percentage of (9.4 %) think that multimedia is not useful. From the pie charts, one can notice that most that most of the respondents feel that the use of multimedia materials really help them while few of them think they do not.

Q4. Do you prefer to learn English by using the different multimedia resources or without them? Explain why?

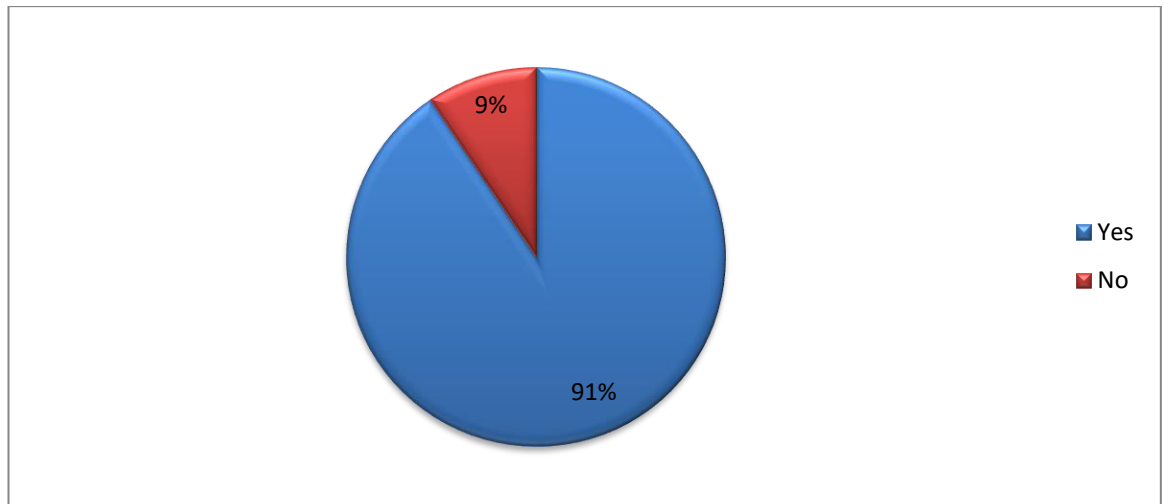


Figure 4

The pie chart shows that 77 of the pupils prefer learn English through the use of multimedia while only 8 pupils think that it is better not use them Therefore, most of the respondents representing 90.6% believe that the use of multimedia is useful whereas the remaining respondents i.e. 9.4% feel the reverse.

Thus, the results obtained from the pupils' answers show that there are many reasons that make them prefer learning English through multimedia resources. Most of respondents, think that multimedia facilitate the learning process and make the explanations and comprehension easier. In addition, those materials help them, memorize the concepts and the information better and in a very short period of time .Moreover, a great number of the pupils have also argued that learning via multimedia make the lesson funnier and enjoyable.

Section Two: Pupils' opinions about teachers' use of multimedia to learn English

Q5. Do you think that your teacher should use multimedia during the lessons?

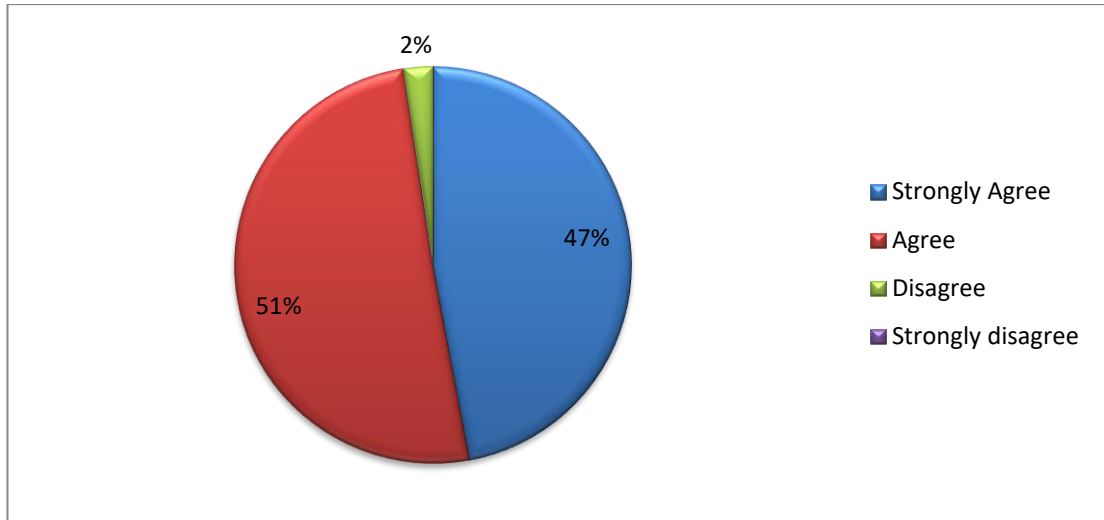


Figure 5

The pie chart, shows that 43 pupils representing 50.6% agree that multimedia should be used by their teachers in the classroom, while 40 pupils representing 47.1% strongly agree with this idea. In other hand, only 2 pupils disagree with the implementation of technological devices during the learning process.

Q6. How often does your teacher use the technological tools for learning English in classroom?

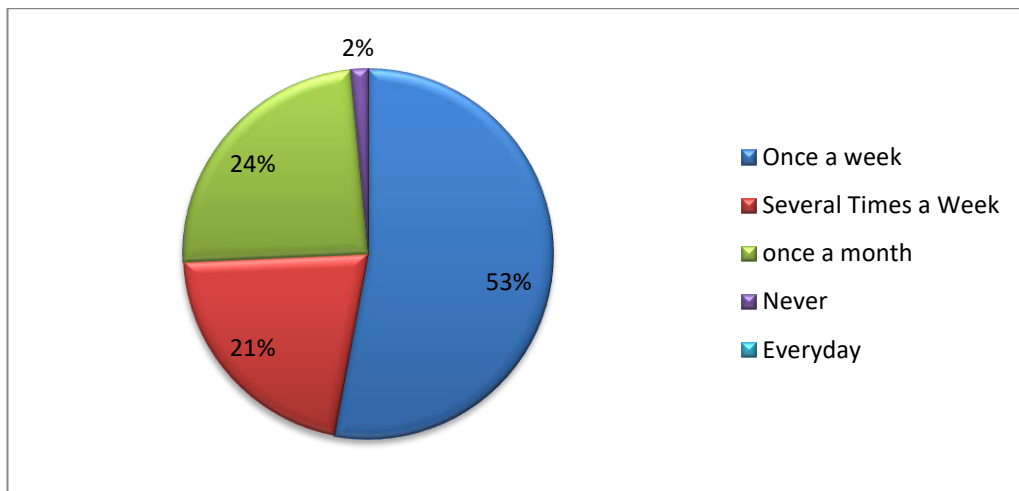


Figure 6

As it can be seen from the pie chart that , most of the students (35), representing the percentage of (41.2 %) confirmed that multimedia is used once a week in the classroom. On the other hand, fourteen (14) pupils representing (16.6%) said that they use it several times a week. 16 other pupils stated that they use it once a month and only 3 pupils have assumed that they use it everyday 17 other pupils claimed that they never used it in the classroom, representing the percentage of (20%).

Q7. Do you think that the use of the different multimedia aids in classroom is?

a)Effective

b) Non effective

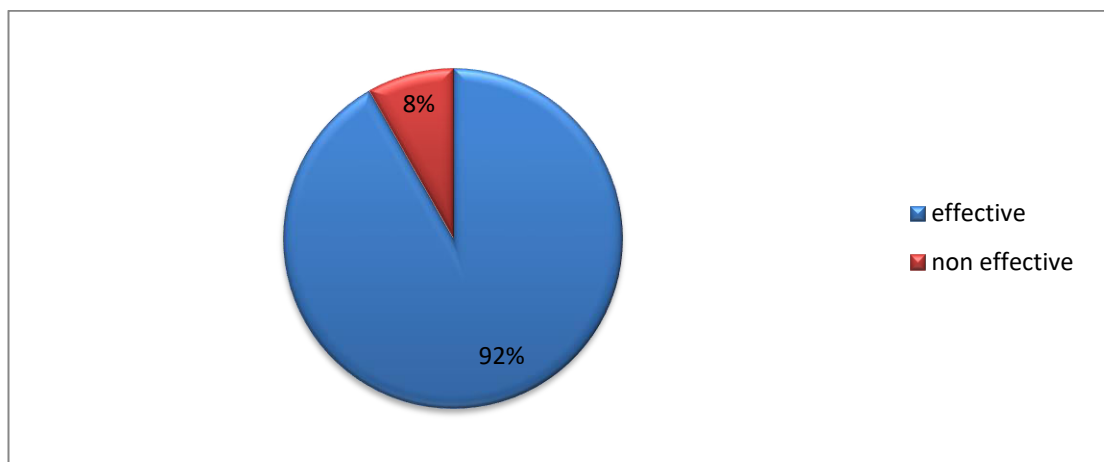


Figure 7

In the question 7, the pupils were requested to state whether the use of educational technology is effective or not. 78 learners, representing the percentage of (91.8 %), stated that the use of multimedia is effective while the remaining respondents , which consist of 7 pupils ,consider learning through multimedia as not effective Therefore from this result, it can be understood that most of the students consider the use of multimedia is an essential and a useful technique during the learning process

Q8. Does the use of technological devices make the lesson?

a. Very interesting

c. less interesting

b. Interesting

d. Not at all interesting

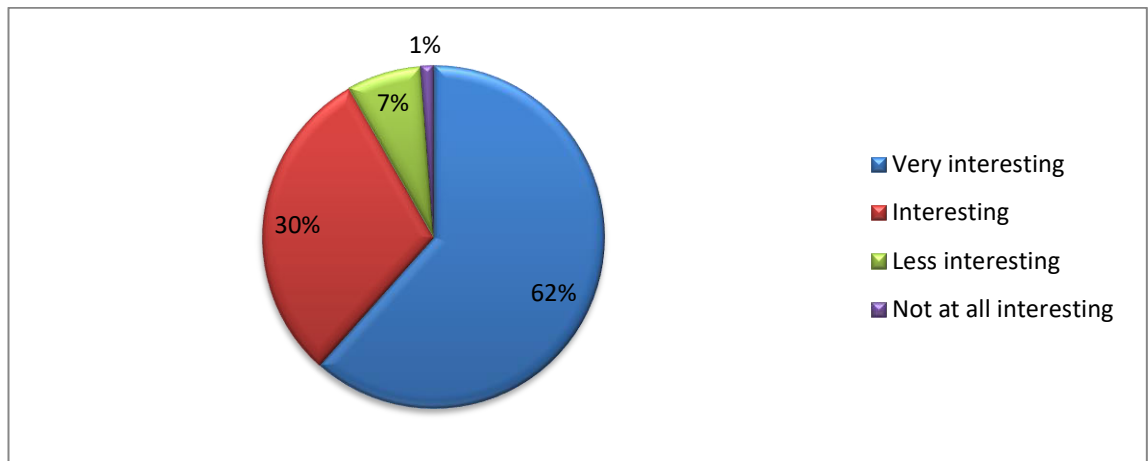


Figure 8

The results obtained from question 8 demonstrate that the majority of pupils representing (62.44%) find the lesson very interesting when they are presented through multimedia, while also 26 pupils representing (30.6%) consider it interesting. In other hand , only 6 pupils of the total number of the respondents, think that multimedia makes the lessons less interesting.

Section three: pupils' opinions about the effectiveness of multimedia in reading comprehension

Q10. Do you think that the use of multimedia help you enhance your reading comprehension?

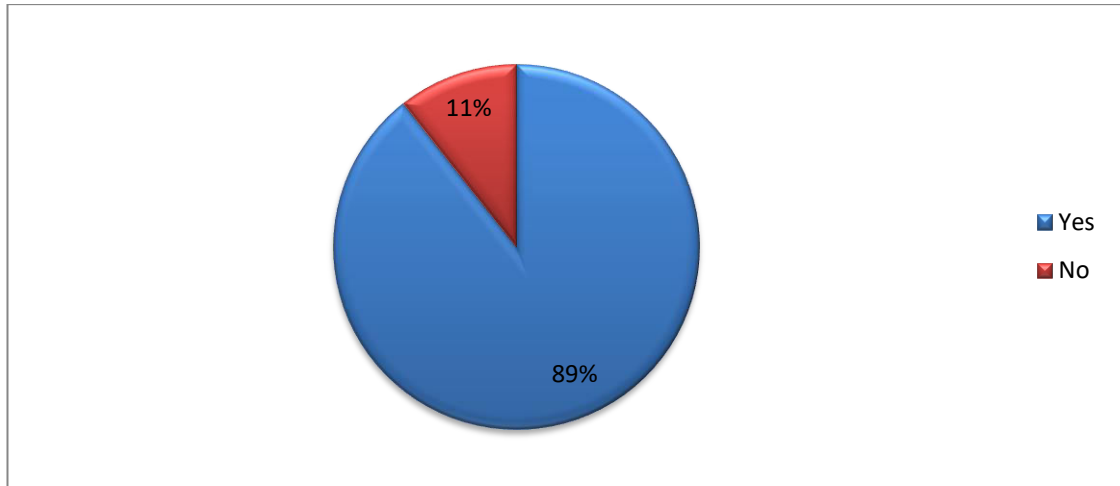


Figure 9

The results obtained from the question 10, show that the majority of pupils (76) representing the percentage of 89.4 % think that multimedia help them enhance the reading comprehension skill, while only (9) pupils representing 10.6 % assert that those materials do not actually help them. Therefore, one can notice that most of the respondents feel that the use of educational technology has positive effects on their reading comprehension skill.

Q11. Does multimedia help you highlight the key words and the main ideas of the text?

- a) Yes b) No

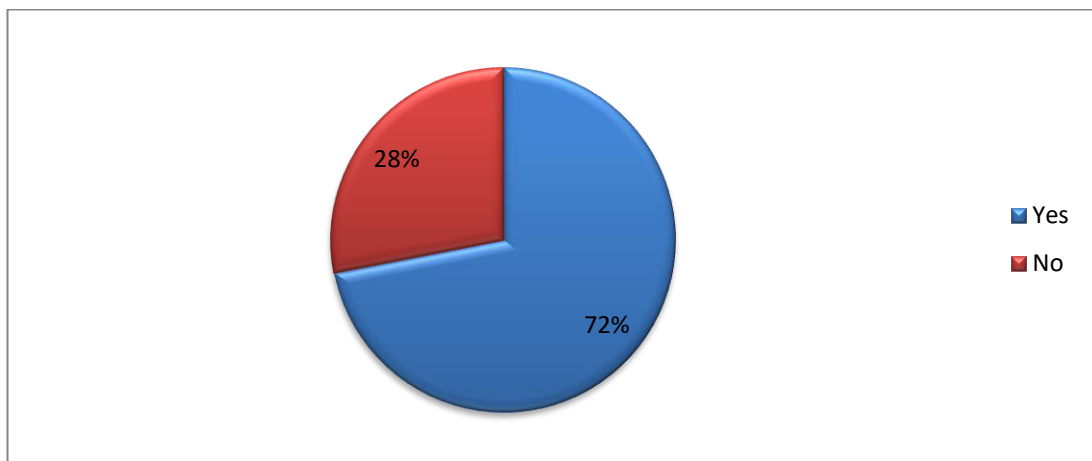


Figure 10

As depicted in the above pie chart (75) of pupils representing a percentage of 88.2 % confirmed that the use of multimedia makes it easy for them to highlight the main ideas and the key words of the text, however (10) pupils making up of 11.8% , think that those materials do not help them.

Q12. Do you prefer to read using?

- a) Printed texts
- b) On screen texts

The above table shows that num of pupils representing a percentage of % like to read using the printed texts, while % of pupils prefer to read on screen texts.

Q13. Do you think that multimedia makes the reading comprehension more enjoyable?

- a) Yes
- b) No

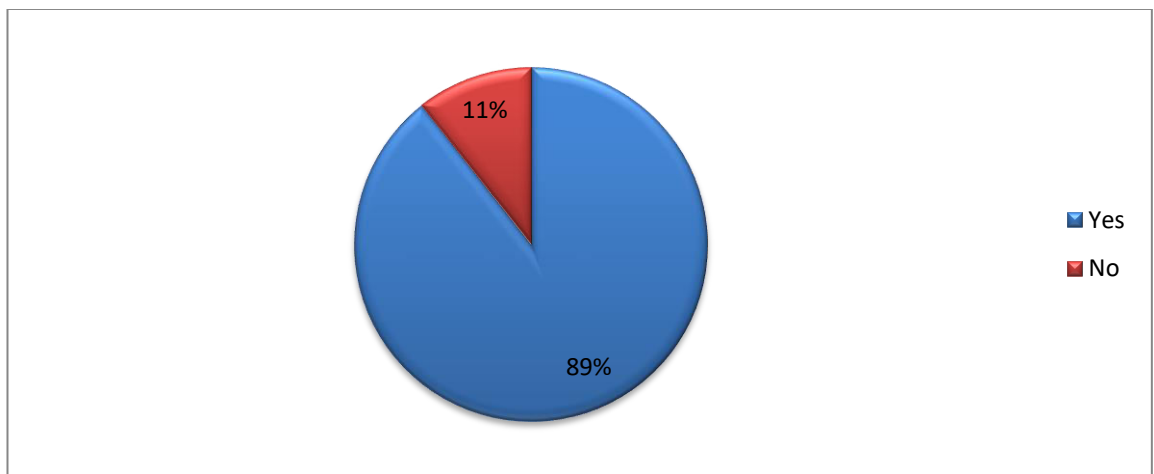


Figure 11

From pie chart, we note that a the majority of the respondents represent ting 89.4 % think that the use of multimedia makes the reading comprehension sessions more enjoyable, however numerical minority of nine respondents (10.6%) think the opposite.

Q14. Do you understand an explanation when it is presented in the form of? Why?

- a) Words alone

- b) Pictures alone
- c) Words and pictures

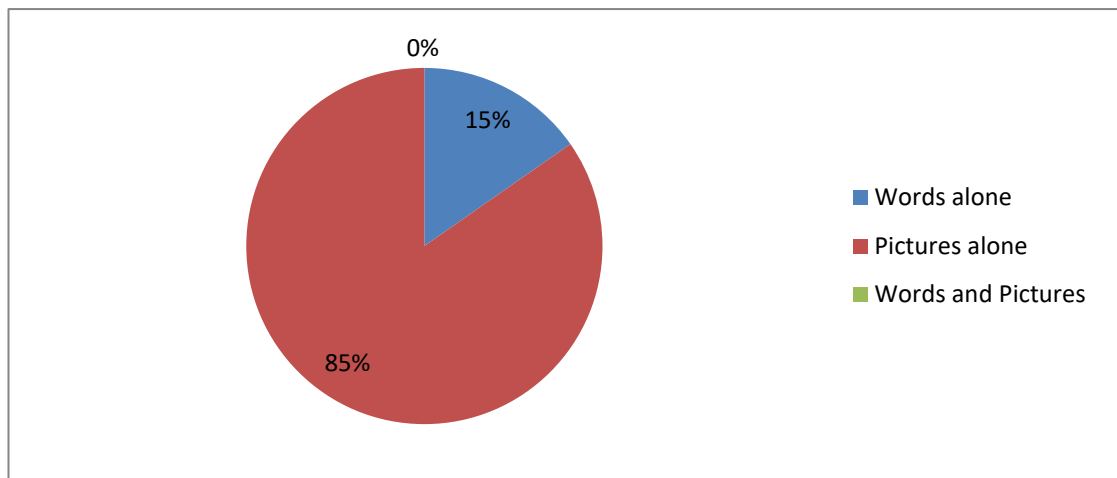


Figure 12

The pie chart above shows that, most of the respondents (72) representing the percentage of 84.7% prefers an explanation that is presented through both words and pictures. In other hand, only (13) pupils representing(15.3) % say that they understand better through words alone. The majority of the pupils view the combination of words and pictures as more helpful to understand and to get the meaning rapidly .Moreover, it gives them the opportunity to see and hear at the same time.

Q15. Do you understand when the words and pictures are presented?

- a) Successively
- b) Simultaneously

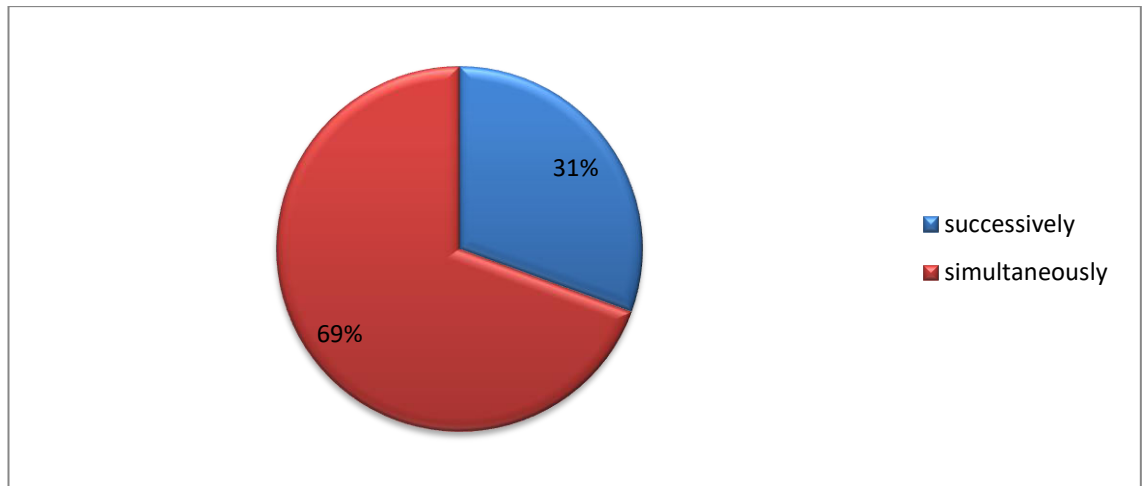


Figure 13

The results obtained from question 15; reveals that (59) pupils who make up 69.4% confirm that they understand better when the words and pictures are presented successively, whereas (26) pupils representing the percentage of 30.6% say that they understand better when they are presented simultaneously.

Q16. Do you understand the text when it is performed through?

- a) Human voice b) Machine voice

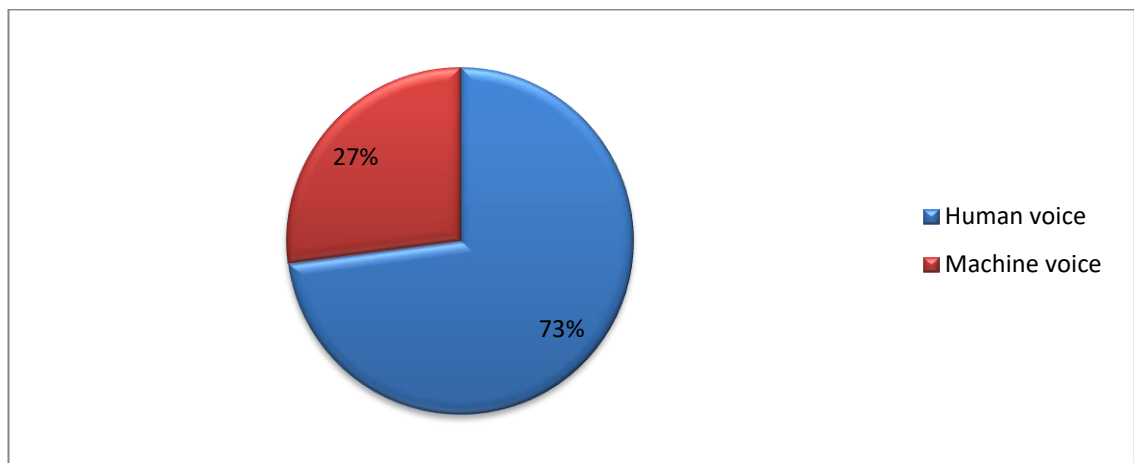


Figure 14

Concerning question 16; the results indicate that the majority of pupils (62) representing the percentage of 72.9 % understand better when the text is performed through the human voice, and only (23) pupils representing 27.1 % prefer when the text is performed through machine voice.

Q17. What are the best multimedia tools in your opinion that can ameliorate your reading comprehension skill?

Concerning the question 17, which is open-ended, the third year pupils were asked about the most suitable multimedia material in their opinion that can ameliorate their reading comprehension skill. Most of the respondents have mentioned a great number of different technological devices including videos clips, pictures, audios, power point presentations, movies, songs, computers and smart phones as a helpful and effective aids. In addition, some of them have also stressed on the importance of internet and especially some effective websites such as YouTube and Google.

Questionnaire

Dear pupils,

This questionnaire is part of our research; it is designed to investigate the significance of using the different multimedia materials in enhancing the reading comprehension skill in secondary school. The results of this survey will be used only for an academic purpose so we kindly ask you to take a few minutes to fill in this questionnaire. Your participation is completely voluntary and all of your responses will be kept confidential and anonymous. Thank you in advance for your collaboration. Your opinion and experience is really important for our study.

Please respond to the following questions by placing a check mark (√) in the answer box that corresponds to your response and/or fill in the blank where indicated.

Section one: pupils' opinions about learning English through Multimedia

1. Do you prefer to learn English using?

Paper materials (e.g. books, handouts)

Digital materials (e.g. videos, pictures)

2. Are multimedia aids used in your classroom?

Yes

No

3. If yes, what are the most used tools?

Tape recorder Pictures

Video Internet

Others.....

4. Does multimedia help you understand the lessons better?

Yes

No

If yes, how?

Answer.....
.....

5. Do you prefer to learn English by using the different multimedia resources or without them?

Explain why?

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

Section Two: Pupils' opinions about teachers' use of multimedia to learn English

6. Do you think that your teacher should use multimedia during the lessons?

Strongly agree

Agree

Disagree

Strongly disagree

7. How often does your teacher use the technological tools for learning English in classroom?

Everyday

Several times a week

Once a week

Once a month

Never

8. Do you think that the use of the different multimedia aids in classroom is:

Effective

Non effective

9. Does the use of technological devices make the lesson?

Very interesting

Interesting

Less interesting

Not at all interesting

Section three: pupils' opinions about the effectiveness of multimedia in reading comprehension

10. Do you think that the use of multimedia help you enhance your reading comprehension?

Yes

No

11. Does multimedia help you highlight the key words and main ideas of the text?

Yes

No

12. Do you prefer to read using?

Printed texts

On screen texts

13. Do you think that multimedia makes the reading comprehension more enjoyable?

Yes

No

14. Do you understand a text when it is presented in the form of?

Words alone

Pictures alone

Words and pictures

Why?

Answer.....

.....

15. Do you understand when the words and pictures are presented?

Successively

Simultaneously

16. Do you understand when the text is performed through?

Human voice

Machine voice

17. What are the best multimedia tools in your opinion that can ameliorate your reading comprehension? And what is your favorite one?

Answer.....

.....

.....

Thank you for your collaboration.

The Teachers' Structured Interview

1. How long have you been teaching English?
2. Do you use multimedia materials in the classroom to teach English?
3. If yes, what types of multimedia do you use?
And how often do you use them?
4. How familiar are the pupils with those materials?
5. Do you advise your students to use multimedia materials even outside the classroom?
6. During your reading comprehension session, do you use multimedia technology?
7. Do you think that multimedia facilitate the pupil's reading comprehension? How?
8. Do multimedia tools help your pupils understand English texts? Explain.
9. What do you think about the integration of multimedia technology in the teaching and learning process?

The Teachers' Structured Interview

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8. Do multimedia tools help your pupils understand English texts? Explain.
9. What do you think about the integration of multimedia technology in the teaching and learning process?