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**The Role of Multimedia in Motivating EFL Learners in
The Classroom.
Case Study: First Year Master Applied Linguistics and
Social Semiotics Students in the Department of English
at Mouloud Mammeri University.**

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Abstract

This study is concerned with investigating the role of multimedia in motivating first year Master Applied Linguistics and Social semiotics students in the department of English at Mouloud Mammeri University of Tizi Ouzou. Its aim is to check whether the multimedia technique is used by teachers of Applied Linguistics and Social Semiotics, and if it could help motivating students. To reach this aim, the cognitive theory of multimedia learning suggested by Richard. E. Mayer is used as our theoretical framework. The investigation is based on the mixed method research. It combines between the quantitative and the qualitative methods. In fact it combines a questionnaire that is addressed to first year master Applied Linguistics and Social Semiotics students and an interview that is conducted with their teachers. It uses a statistical method to elicit statistical data, then adopts a qualitative content analysis for the interpretation and the explanation of the results. After the discussion of the results, it was found out that the teachers of semiotics in the department of English Mouloud Mammeri University of Tizi Ouzou use multimedia with the first year Master Applied Linguistics and Social Semiotics students. Also, the results provide evidence that multimedia is a technique that could help increasing the students' motivation and promote their learning.

Key words:

Multimedia, Motivation, Teaching, Learning, EFL Learners.

Dedication

I dedicate this work :

- ❖ To my parents for their support and encouragement.
- ❖ To my lovely sisters **NASSIMA** , **AMEL**, and **SABRINA**.
- ❖ To my dear brothers **HOSSINE**, **KAMEL** , and **SOFIANE**.
- ❖ To my best friends **LILA**, **SYLIA**, and **ABDELKHALEK**.
- ❖ To all my relatives.

Khalida

Dedication

This work is dedicated to:

- ❖ My lovely parents : **Rabah** and **Zehira** .
- ❖ to my sisters : **Sadia** and **Naima** .
- ❖ To my brothers : **Djamal** and **Hamza**.
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Nora and **Kanza** .

Saloua

List of Abbreviations

- **TEFL**= Teaching English as a Foreign Language.
- **EFL**= English as a Foreign Language.
- **LMD**= Licence Master Doctorate.
- **IMRAD**= Introduction, Methods, Results and Discussion.
- **QCA**= Qualitative Content Analysis.

List of Diagrams

Diagram 01: Students' familiarity with multimedia learning.....	32
Diagram 02: The use of multimedia in the classroom.....	33
Diagram 03: Students' opinions about the presentation of projects using multimedia....	33
Diagram 04: Students' opinions about the interestingness of a lesson presented by Multimedia.....	34
Diagram 05: Students' opinions about the effectiveness of multimedia.....	35
Diagram 06: Students' opinions about multimedia motivation in EFL.....	36
Diagram 07: Students' feelings when working with multimedia.....	36
Diagram 08: Students' opinions about the use of multimedia devices	37
Diagram 09: Students' preference between computer based lesson or traditional lesson.....	38
Diagram 10: Students' preferable in understanding an explanation.....	38
Diagram 11: Students' preference in understanding a text.....	39
Diagram 12 : Students' preference when learning with words and pictures	40
Diagram 13: Students' preference in multimedia learning.....	40
Diagram 14: Students' preference when learning with words, pictures and sounds.....	41

Contents

General Introduction

1. Statement of the problem	01
2. Aim and Significance of the study	02
3. Research problems and hypothesis.....	03
4. Research tools and methodology.....	03
5. Structure of the dissertation	04

Chapter one: Review of the Literature

Introduction

I. Multimedia learning.....	06
1. Definition of multimedia.....	06
2. Relationship between multimedia and learning.....	07
3. How does multimedia work ?.....	11
4. The Cognitive theory of multimedia learning.....	12
4.1 The dual channel assumption.....	12
4.2 Limited capacity assumption.....	14
4.3 Active-processing system.....	14
5. The principles of multimedia learning.....	18
6. The roles of teachers in multimedia environment.....	19
II. The significant role of multimedia in motivation.....	20
1. Definition of motivation.....	21
2. Types of motivation.....	22
2.1 intrinsic motivation	22

2.2 Extrinsic motivation.....	23
3. Multimedia advantages in English teaching and learning.....	24
Conclusion.....	25

Chapter two: research design and methodology

Introduction

1. The context of investigation	26
2. The participants	26
3. Procedures of data collection.....	27
3.1 the interview.....	27
3.2 the questionnaire.....	27
4. procedures of data analysis.....	28
4.1. statistical method.....	28
4.2. qualitative content analysis.....	28
conclusion.....	29

Chapter three: presentation of the findings

Introduction

1. Results of the questionnaires.....	31
2. Results of the interviews.....	39
Conclusion.....	41

Chapter four: discussion of the findings

General conclusion.....	49
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Bibliography

Appendices

GENERAL INTRODUCTION

1- Statement of the problem:

For many years, researchers had been advocating the importance of multimedia in education. Many studies have been conducted to investigate the issue of teaching with multimedia, for instance in the USA, Lehrer (2012) in a study conducted with eight grades has found that students who learned about the civil war using multimedia tools could remember and memorize better than those who learned it using traditional methods. In this respect Okolo and Ferretti (1998) argue that through text, audio, video, and sound, students can understand more complex information.

In order to achieve the ultimate goal of students' learning in the 21st Century classrooms, teachers of English as a foreign language are in a constant search of what may help their learners increase their proficiency level and promote their learning as learning the language in class should be done through active participation of the learner. With the development of technology and the boom of the digital revolution it becomes important to use a variety of teaching methods and to make of the classroom a stimulating and interactive environment. In addition, foreign language teachers should think about effective new ways supported by multimedia technologies as Multimedia is now increasingly accepted as a means for English language learning.

In the Algerian context, English is taught in all universities either in the department of English, or in other departments where English is studied for specific purposes, . It is worth mentioning as well that in the Algerian context, using multimedia in EFL classes at the level of university has received insufficient interest. This has been noted by Souhila Mekhoukh (2012) who is an assistant lecturer at the English department of the university of Ferhat Abbas in Setif, Algeria where, she conducted a study and argues that, despite the widespread of the internet and computer applications, particularly in the past decade, in Algeria,

General introduction

technology is rarely used by teachers and students in universities despite the new educational reforms which can be exemplified in the LMD system (Licence, Master , Doctorate) which emphasise the integration of technology and multimedia tools in the learning process. H. Astleitner and C. Wiesner (2004) who conducted a study entitled “An integrated model of multimedia learning and motivation”, have demonstrated that motivation is higher in course that use multimedia tools.

Motivation for learning is thought to be one of the most critical determinants of the success and quality of any learning outcome. It has long been a major problem for most teachers of English as a foreign language. Most students have low motivation to learn English. The first step in tackling the problem of motivation is that teachers need to understand and appreciate the role and importance of motivation in any learning. One of the successful ways, if the teacher is resourceful and skillful enough to motivate his / her students to participate in the lesson is to use multimedia. Yet there are teachers who apply this strategy while others do not . Thus, this study aims to identify whether multimedia is used in the first year Master Semiotics Classes in the department of English at UMMTO and to discern the role of multimedia technology in arousing motivation in language classrooms. Consequently, the study aims to propose several practical ideas to make language learning more effective. Thus, this research tries to answer the following questions at the end of the study : is multimedia used by teachers with 1st year master Applied Linguistics and Social Semiotics students in the department of English at UMMTO ? And could it help motivate the learners and promote learning ?

2-Aim and significance of the study:

The overall aim of our investigation is to answer our research questions which focus on identifying whether “multimedia” is used in the first year master Applied Linguistics and Social Semiotics classes in the department of English at UMMTO, and to discern whether

General introduction

multimedia can help the learners and keep them motivated. The reason that lies behind our choice for this subject is the experience we have had as students of English at the university, and as future teachers we are going to see if the use of multimedia is worthy for teaching English as a foreign language.

3- Research questions and hypotheses:

In order to guide our investigation we ask these following questions:

1- Do Master 1 semiotics teachers use multimedia in the department of English at Mouloud Mammeri university?

2- Could multimedia help motivate the learners?

In an attempt to answer these questions we have advanced the following hypotheses:

H1: Master 1 semiotics teachers use multimedia.

H2: master 1 semiotics teachers do not use multimedia.

H3: Multimedia can help motivate students.

H4: Multimedia cannot help motivate students.

4- Research tools and methodology:

To conduct the investigation, we have adopted the mixed method research. We have combined between quantitative and qualitative methods for data collection and data analysis. Our procedures for collecting data are: a questionnaire designed for the students and an interview that targeted four (04) teachers. The participants are the first year master Applied Linguistics and Social Semiotics students and their teachers in the department of English at Mouloud Mammeri University of Tizi Ouzou.

To conduct this research we heavily rely on the Cognitive Theory of Multimedia Learning (CTML) by (Richard Mayer) 2009 which centers on the idea that learners attempt to build meaningful connections between words and pictures and that they learn more deeply

General introduction

than they could have with words or pictures alone (Mayer,2009). According to (CTML), one of the principle aims of multimedia instruction is to encourage the learners to build a coherent mental representation from the presented material as an active participant, ultimately constructing new knowledge.

5- Structure of the dissertation:

The overall structure of this dissertation follows the traditional-simple model. It consists of a general introduction, four chapters and a general conclusion. The first chapter deals with the review of the literature related to the major theoretical concepts as well as definition of terms. The second chapter presents the research design in addition to the procedures of data collection and data analysis. The third chapter presents the findings of the questionnaire and the interview in the form of diagrams. The last chapter is devoted to discussion of the findings on the basis of the theoretical framework in order to give answers to the research questions.

Finally, this dissertation ends with a general conclusion which presents a summary of the different points tackled throughout the research.

THE REVIEW OF THE LITERATURE

Introduction

Several studies indicate that multimedia can improve learning and the store of material presented during a class session compared to the traditional classroom devoid of the use of multimedia. In a multimedia classroom, the teacher plays a major role in going beyond conveying the knowledge to students who had been used to receive and store the information taught in class. Today, strong claims are being made by educational institutions all across the world for the exploitation of multimedia learning environment.

The educational benefits of the use of new educational technologies can be effective to motivate students and foster their learning, however the use of this new instructional technology should be sustained by a theory of learning, to name it, *The Cognitive Theory of Multimedia Learning*.

the chapter of the review of the literature attempts to shed light on the theoretical principles that are related to the role of multimedia in language learning. It is divided into two sections. The first section is entitled *multimedia learning* and the second one is named *the role of multimedia in triggering motivation*. The first section will give due concern to the role of cognitive processes that help students to learn, processes that construct learners' autonomy. In the second section we shall highlight teachers' roles in providing selected functional materials coupled with the use of multimedia to provide the appropriate setting for successful learning. We shall conclude this chapter by proposing several practical ideas to make language learning more effective.

The former section starts with the definition of multimedia and its relation to language education. The latter section examines multimedia as a judicious mean which triggers students' motivation to learn.

I. Multimedia learning

1. Definition of multimedia:

Multimedia has been defined in a number of ways by many authors. To start with, Richard. E. Mayer (2001) defines multimedia (called also dual-code or dual-channel) as “*the presentation of material using both words and pictures*” (Mayer, 2001: 02). Said differently, the author associates verbal form to the pictorial form which can be materialized through static graphics such as illustrations, graphs, photos, maps, or dynamic graphics founding animation or video materials. Concerning the use of the term “multimedia”. The same author makes a distinction between, multimedia when used as a noun or when used as an adjective. The former alternative refers to technology which serves to present a communication/lesson through visual and verbal means. (ibid, 2001: 3), whereas in the latter alternative (when used as an adjective), multimedia qualify rather a process: eg. Multimedia learning, multimedia presentation, multi-instructional message or multi instructional presentation.

There are other definitions of multimedia. For example, Schwartz & Beichner (1999) define multimedia as “*the use of multiple forms of media in presentation*”. (Schwartz and Beichner, 1999: 8). Greenlaw and Hepp (1999), for their part, state that “*multimedia is information in the form of graphics, audio, or Movies. A multimedia document contains a media element other than plain text* (1999: 44). “Another definition of multimedia is proposed by Madlux, Johnson, and willi (2001) who claim that multimedia comprise a computer program that includes “*text along with at least one of the following : audio or*

The Review of the Literature

sophisticated sound , music, video, photographs, 3-D graphics, animation, or high resolution graphics “.(Maddux, Johnson, & Willis,2001 : 253) .

The commonality among these definitions involves 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. (Jonassen, 2000 : 207).

2. Relationship between multimedia and learning :

According to Richard. E. Mayer (2009) learning is a change in knowledge attributable to experience. This definition has three parts :

- a) learning is the change in the learner ; b) what is changed is the learner's knowledge ; and
- c) the cause of the change is the learner's new experience in a learning environment.

He also adds : “ *learning is personal, in that it happens within the learner's cognitive system. The change in knowledge cannot be directly observed but must be inferred from a change in the learner's behavior –such as performance on a test*”. (Mayer, 2009 : 59) . what Mayer refers to is that learning always involves a change in what the learner knows, and this change can be observed through the learner's outcome such as his/her performance in a test. Research in multimedia and their effects on learning have increased, because multimedia learning systems offer a potentiality for improving students' understanding of language and satisfaction. In this respect The work of Mayer provides an example of well-grounded multimedia research that is yielding interesting findings.

Experts and scholars such as C.Shelly and C. Cunter point out that:

the advantages of multimedia assisted instruction include strengthening learning motivation and attention of learners , increase interactivity, satisfying individualized

The Review of the Literature

demand, monitoring the learning condition of learner, and non-space-time restricted Internet communication allowing the learners to learn by themselves at any time and any place. (C. Shelly and C. Cunter : 2006).

In other words, the use of multimedia in the classroom would increase the amount of communicative discourse by both the teacher and the learner. In addition, the combination of different multimedia tools would make the whole class active and the learners will be engaged in the learning process effectively. Moreover, the learners can learn by themselves through multimedia to obtain limitless learning capacity that is not restricted by time and space.

Relevant studies have been conducted about the relationship between multimedia and language learning that we can summarize in the following points:

A). Multimedia provide plentiful information:

G.Jones, T.Squires and J.Hicks, (2008), state:

Multimedia provides all kinds of information, creates abundant learning scenario, and combines existing technology, making language learning to have more assisted resources. In addition, online multimedia could also help the learners to cooperate with and learn from each other. 3D environment could maintain learner's high motivation, increase interaction, promote schoolwork achievements, create virtual scenario, integrate various kinds of media contents and technology into a single interface, and help learners to learn language. (G. Jones, T. Squires and J. Hicks, 2008: 375-392).

Said differently, multimedia can provide a large amount of information to students for the purpose of language learning and accelerate the process of information searching because learners can easily find the information they want from the large amount of information stored in the Internet.

B). Multimedia contribute to long term memory:

Animation includes text and pictures that could promote the production of multiple representations and is contributive to long-term memory. According to Richard. R. Moreno *et*

The Review of the Literature

al (2002) “ *the three characteristics of animation, pictures, movement, and simulation could present more intact knowledge information and strengthen learning*” Moreno, *et al*, 2002,99) for their part, L.C . Jones and J.L. Plass (2002) find that the animated content combined by text and pictures allow learners to build psychological representation actively, so they could recall their memory easier when answering questions, namely, the effect of long - term memory could be better.

C). Need to avoid cognition overload

From the study regarding multimedia’s influence towards children’s vocabulary learning, E. Dale (1946) finds that learning materials showing only text provide the best effect for childrens’ vocabulary memory, whereas learning materials showing pictures or pictures plus text would cause cognitive overload to them. However, E. Dale (1946) also believes that pictures could create more abundant learning scenario which is helpful to elaborating the meaning of a text and profound understanding. (E. Dale :1946).

By this is meant, multimedia presentation can be effective in English learning, when the different types of media support one another rather than they do not, which may cause a cognitive overload that could interfere with students’ learning.

D). Specific learning experience:

D. B. Rubin (1987) addresses “cone of experience”, stating that “ *practice directly was the easiest way for people to learn, visual media with “pictures” was the second easiest way, and the learning experience provided by “abstract” symbols was the third easiest way to learn*”. Therefore, the multimedia technology that blends “picture” and “abstract” provide students with learning experience in which they retain more information by what they “do” rather than what is “heard” or “observed”. Today this “learning by doing” has become as

The Review of the Literature

“experiential learning” or “action learning” , which is corresponding to the model of enactive representation, iconic representation, and symbolic representation that J. Bruner, brought up in 1964.

J. Bruner (1964) views learning as an active, involved process. He believes that people selectively perceive certain aspects of their environment, represents those perceptions internally, and then act on those internal representations. J. Bruner develops three modes of representation as we have mentioned before. First, the enactive stage characterized by direct manipulation of objects without any internal representation of the objects. Second, iconic stage characterized by internal representation of external objects visually as images or icons. Finally, the symbolic stage characterized by symbolic representation of objects through words or other symbolic means. So, in this respect, in teaching we should first present a concept in the enactive stage involving direct manipulation of objects, then we re-introduce the concept in the iconic stage using some form of imagery, and finally, we re-introduce the concept symbolically using words or other symbolic means.

E). Multimedia can arouse learning motivation:

Multimedia can compose teaching materials using multiple methods. Compared to static media such as print media of textbooks and wall chart model, the acoustic optic special effect and creative design of computerized multimedia are more lively and interesting. So it could arouse the extrinsic motivation of learners even more. In addition, the multimedia composed of high quality teaching design could help arouse the intrinsic motivation of learners as well. Acha (2009) says in this context:

Skillful teachers know how to convey information in an appropriate way and how to arouse student’s interest using computers or the internet. Therefore, a proper combination of multimedia and teaching methodology is appropriate to attract EFL students’ attention during English-language learning. (Acha, 2009 : 29)

F). Creating active learning activities is contributive to the communication between teachers and students and between classmates:

The learners only need to be involved in what they are learning and which relate to their needs in term of, images, and sounds, and they could find themselves immersed in the issue according to individual/personal. Consequently, they could also have more control power to learn according to their own ideas. In addition, the learners can communicate with the teachers through all kinds of communicative media, and when the learners create their own study environment, they can study more calmly and discuss with classmates at the same time.

3. How does multimedia work ?

According to Mayer who is the father of the Cognitive Theory of Multimedia Learning, “*For hundreds of years , verbal messages such as lectures and printed lessons have been the primary means of explaining ideas to learners*” (Mayer, 2009:47). However, teaching has always been a “multimedia enterprise”, teachers typically have spoken aloud, drawn pictures and attempted demonstration for the benefit of their students. With the evolving and advent of technology, the material can be presented and the information can be delivered in different visual modes combining different media tools. Mayer (2009) in his book “ *cognitive theory of multimedia learning*” explores ways of going beyond the purely verbal, in other words, tries to lead us towards an alternative to this purely verbal representation promoting multimedia representation in which people learn from words and pictures. (i ,e) multimedia learning .

The promise of multimedia learning that is promoting students understanding by mixing both words and pictures depends on designing multimedia instructional messages in ways that are consistent with how people learn. The principle known as “multimedia learning” states

The Review of the Literature

that “*people learn more deeply from words and pictures than from words alone*” (ibid, 2009:47). However, simply adding or mixing words to pictures is not an effective way to achieve multimedia learning. The goal is to design instructional media in the light of how human mind works and how it processes information. That is the basis for Mayer’s Cognitive Theory of Multimedia Learning. This theory proposes three main assumptions when it comes to learning with multimedia.

4. The Cognitive theory of multimedia learning:

Richard. E. Mayer presents a theory of multimedia learning based on three main assumptions suggested by the cognitive science research about the nature of human learning. He states :

cognitive theory of multimedia learning assumes that the human information-processing system includes dual channels for visual / pictorial and auditory/ verbal processing each channel has limited capacity for processing , and active learning entails carrying out appropriate cognitive processing during learning (Mayer, 2009: 57).

4.1 The dual channel assumption:

The dual channel assumption is that humans possess separate information processing systems for visual and verbal representation. In the words of Mayer who explains his theory (2009) “*the dual channel assumption is that humans possess separate information-processing channels for visually represented material and auditorially represented material*”(Mayer,2009:46) . For example, animations are processed in the visual/ pictorial channel; and spoken words (i, e, narration) are processed in the auditory/ verbal channel, he states that :

when information is presented to the eyes (such as illustrations, animations, 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

The Review of the Literature

non-verbal sounds) people begin by processing that information in the auditory channel .(Mayer,2009: 64).

This concept of separated information-processing channel is derived from a long history in cognitive psychology, and currently associated with A. Paivio's (1986) Dual coding theory and Baddeley's (1992) Working memory. The theory assumes that there are two cognitive subsystems, one specialized for the representation and processing of non-verbal objects/events (i, e, images) and the other specialized for dealing with language.

A.Paivio (1986) states that *“human cognition is unique in that it has become specialized for dealing simultaneously with language and with non-verbal objects and events”* (Paivio,1986:53). This dual coding theory proposed by Paivio attempts to give equal weight to verbal and non-verbal processing and its main principle is that recall/recognition is enhanced by presenting information in both visual and verbal form.

On the other hand, Baddeley (1992) develops a model of working memory which has been previously referred to as a short-term memory. According to this approach, working memory refers to the memory with limited capacity and that one is currently processing and a system with several different parts that control the information being processed. Baddeley (2007) describes working memory as *“a temporary storage system under attentional control that underpins our capacity for complex thought”* (Baddeley, 2007: 1).

Richard. E. Mayer (2009) makes a distinction between two ways of conceptualizing the differences between the two channels; the first one is based on the presentation modes and the other one is based on sensory modalities. He says that :

For purposes of the cognitive theory of multimedia learning I have opted for a compromise in which I use the sensory-modalities approach to distinguish between visually presented material (such as pictures, animations, video, and on-screen text) and auditorally presented material (such as narration and background sounds) as well as a representation-mode approach to distinguish

The Review of the Literature

between the construction of pictorially based and verbally based models in working memory .(Mayer ,2009: 65).

Said differently, presentation mode approach focuses on whether the presented material is verbal such as spoken or printed words, or nonverbal such as illustrations, vide or animation. According to presentation mode approach, one channel processes verbal material, and the other channel processes pictorial material and nonverbal sounds. By contrast, the sensory modalities approach focuses on whether learners initially processes the presented material through their eyes such as illustration and animation or ears such as spoken words. According to the sensory modalities approach, one channel processes visually represented material and the other channel processes auditorially represented material.

4.2 Limited capacity assumption:

The limited capacity assumption is that the amount of processing, that can take place within each information processing channel is extremely limited, that is to say, each channel has a limited (finite) capacity. For example , learners may be able to mentally activate about a sentence of the narration and about ten seconds of the animation at any time. This second assumption is similar to Sweller's (1999) notion of cognitive load.

Cognitive load theory is developed by John Sweller. It relates to the amount of information that working memory can hold at one time. When an illustration or animation is presented, the learner is able to hold only a few images in working memory at any one time, reflecting portions of the presented material rather than an exact copy of the presented material.

Many other researchers' results and findings continue to show that human processing capacity is extremely limited and that human can only process a finite amount of information in a channel at a time.

4.3 Active-processing system:

The active learning assumption is that meaningful learning occurs when learners

The Review of the Literature

engage in active cognitive processing including paying attention to relevant incoming words and pictures, mentally organizing them into a coherent verbal and pictorial representation and mentally integrating verbal and pictorial representation with each other and with prior knowledge.

Another important thing worth mentioning is that this process of active learning runs against the view of humans as passive learners who are just to store the information taught in their memories to be retrieved and used later, but rather, learners actively construct their knowledge, in interaction with their environment and through the reorganization of their mental structure. This view of learning led the shift from the “knowledge acquisition” to “the knowledge construction” metaphor.

Various theorists perceive constructivist theory differently, even though common ground is attained. Stommen and Lincoln (1992: 415) say that:

within the environment of constructivism Knowledge is viewed as “something created, discovered, and experienced. furthermore, learners have the opportunity to take personal responsibility, exercise initiative and be in control in the instructional setting through a variety of learning experiences.(Stommen and Lincoln, 1992:154).

Jonassen (1995: 58) defines constructivism from the educational perspective as learners producing and Constructing their personal knowledge. The same author distinguishes between constructivism and instructivism, where the learner is a passive receiver of knowledge, as in the traditional educational model “*The learning environment changes completely in the new paradigm to The one that is more learner centered. The teacher becomes a facilitator, coach and motivator, not the transmitter of knowledge*”

The idea of learner autonomy is essential, because constructivist learning relies on the learner doing the work of learning, as constructivist teaching empowers the learner to construct and interpret his/ her understanding of knowledge and reality. W.P .Zhou (2004), points out that:

The Review of the Literature

knowledge is not obtained only by teaching but by other's help and suitable learning material from constructivism way under a certain social cultural background and teachers should put new and effective modes, ways, and designing thoughts into multimedia teaching practice. (W.P.Zhou, 2004:83-85).

This third assumption of multimedia learning simply refers to learning as an active process of filtering, selecting, organizing, and integrating information based upon prior knowledge. This process of active learning results in meaningful learning outcome.

In short, the major ways in which knowledge can be structured take place when active learning can occur thanks to cognitive processes. Three processes of selecting, organizing and integrating are part of these cognitive processes.

A- Selecting

In a computer-based environment, the external representations may include spoken words, which enter through the ears, and animations, which enter through the eyes. A learner must select relevant aspects of the sounds and images for further processing. In addition, a learner may convert some of the spoken words into verbal representations for further processing in the verbal channel whereas some of the animation can be converted into visual representations for further processing in the visual channel.

In a book - based environment , the external representation may include printed words and illustrations, both of which initially enter through the eyes. A learner must select relevant aspects of incoming images for further processing. In addition, he may convert some of the printed into verbal representations to be processed in the verbal channel and may even convert some of the illustration into verbal representations to be processed in the verbal channel. These processes are called "Selecting".

The Review of the Literature

B- Organizing

The second process is to build a coherent mental representation of the verbal material (i.e, form a verbal model). Learners, in this process, build internal connection among selected words in order to create a coherent verbal model; for instance, a learner organizes the steps into a cause- and - effect chain for the words. *“in the lightning lesson, the learner might build causal connections between the selected verbal components; first : cool air is heated ;second : it rises ; third: it forms a cloud”* He adds : *“ in a mentally building a causal chain, the learner is organizing the selected words”* (Mayer, 2009:73-74) .

Concerning images, a learner has to build a coherent mental representation of the visual material (i,e form a pictorial model) Learners in this process, build connections among pieces of pictorial knowledge and this in order to create a coherent pictorial model, for example the learner organizes the steps into a cause and effect chain for the pictures.

C- Integrating :

This third process is to build connection between the verbal and pictorial models with prior knowledge. This learning process involves making connections between word-base and image-base. This process consists of a change from having two separate representations the verbal and pictorial model, to having an integrated representation in which corresponding relations from one model are mapped onto the other with prior knowledge activated from long- term memory. In this step the input for is the pictorial and verbal model that the learner has constructed so far, while the output consists of the integrated model that is based on connecting the two representations.

The Review of the Literature

Concerning this process. For instance, in the lightning lesson learners make connections between corresponding steps in the verbal chain and pictorial chain and justifies the steps on the basis of his or her knowledge of the topic .

Multimedia learning takes place in the learner's information processing system which contains separate channels for visual and verbal processing with a limited capacity for each channel as it is mentioned before. In short the processes of selecting , organizing and integrating generally do not occur in a rigid linear order, but rather in an iterative fashion. Once a learning outcome has been constructed, it is stored in long - term memory for future use.

5. The principles of Multimedia Learning:

In multimedia learning, second edition (2009) Richard. E. Mayer reviews twelve principles of instructional design that are based on experimental research studies and grounded in a theory of how people learn from words and pictures that is, cognitive theory of multimedia learning.

Those twelve principles include : signaling, segmenting, pre-training, personalization Voice, image, coherence, multimedia, temporal contiguity, spatial contiguity and finally redundancy.

Below, we have selected five of the most important principles of multimedia learning to our research and what Mayer says about how they contribute to students effective learning and help better understanding.

To start with, the first principle is *multimedia principle*, it is simply that it is better to present an explanation using two modes of representation (i,e) multiple representation rather than one. Words include written and spoken text, and pictures include static graphic images, animation and video. J. Sweller (1999) says that the use of both words and pictures lets the brain process more information in working memory. *Temporal contiguity principle* is that

The Review of the Literature

words and pictures should be presented simultaneously, rather than successively or separately. Multimedia applications are more effective when learner's attention is not split. Split attention occurs when the learner is forced to attend to information that is far apart, such as when content is visually far apart on the screen or if it is presented at two separate points in time. When related content is presented together, the learning is more effective. *The third principle is coherence.* This principle is that people learn better when extraneous words, pictures and sounds are excluded rather than included. In this case Multimedia learning is most effective when it includes content that is relevant and aligned to the instructional objectives. So learning is most effective when interesting and irrelevant information is eliminated because of the brain's limited information processing resources. Precious brain resources should be focused on essential information aligned to instructional goals. *Spatial contiguity principle* is merely that students learn better when corresponding words and pictures are presented near rather than far from each other on the page or screen.

To conclude, *redundancy principle* is that people learn better from graphics and narration than from graphics, narration, and printed text.

6. The roles of teachers in multimedia environment:

The awareness about the necessity of the use of multimedia in a classroom is increasing lately, among educationalists, researchers and administrations. They also call for a change in the culture of teaching and learning, and move away from the traditional way of teaching (chalk and talk) to a multimedia environment that has a certain amount of entertainment value for learners and raise their interest level. In a Delphi study, conducted in 2002 for the German federal ministry of Education and research over a period of two years, 73% of experts polled for it and believe that teachers have important roles in multimedia environment.

The Review of the Literature

As a facilitator and a guide, a teacher must be more than a giver of information. He must be aware of a variety of materials available for improving students' language skills because the language textbook is no longer the only source for information but, there are other multimedia programs that teachers need to know how to teach learners to use them effectively. In addition, teachers must not only know and understand the functions of different media available in a media-rich environment but they should also know when best to deploy them. Moreover, teachers who are familiar with the use of technology and electronic tools in the classroom for language analysis will be able to develop their own linguistic and professional competence and increase their confidence in the use of the language.

In order to organize successful learning situation, teachers need to learn how to put together tasks and materials to guide their learners to successful learning. This role of teachers as a designer requires higher order skills, setting overall aims and objectives and breaking down tasks into meaningful and manageable sequences. This new role of language teachers should be encouraged by educational authorities. In addition, collaboration with colleagues will lighten the burden and make the efforts more fruitful and rewarding.

II. The significant role of multimedia in motivation

The importance of motivation in language teaching and learning a second or foreign language is not easy, because it requires various educational and psychological factors, that highly influence the learning process.

Motivation plays a central role in both the transmission and reception of knowledge. Motivation to learn requires taking academic task seriously, attempting to get the most from it, and applying appropriate learning strategies in the process. The duty of teachers in this case is to keep the unmotivated students to become more interested in learning and help them to

The Review of the Literature

succeed in learning using different strategies such as multimedia, because once students are motivated they will engage in the learning process. In addition, teachers need to know the needs of their students as well as their necessary requirements. This is vital if multimedia are to be used in universities effectively.

Multimedia offer teachers enormous opportunities for making teaching and learning environment meaningful and effective., therefore teachers need to make full use of multimedia to create an authentic language teaching and learning environment where students can easily acquire a language naturally and effectively.

1. Definition of motivation :

Motivation is thought of as one of the important and effective factors that modulate and change language teaching and learning. Giving a clear definition of the concept of motivation is somehow difficult due to the complex nature of the notion of motivation . This term comes from the latin word “movere” and means movement (Mark.H.Anshel, 2005). To Take it in its simplest ,motivation means focusing on how and why people start actions and how they feel while performing the activity. Michel (1982), for example, defines motivation as “*those psychological processes that cause the arousal, direction, and persistence of voluntary actions that are goal directed*” (Michel,1982: 81). Likewise, Phares and Chaplin (1997) define it as “*the forces within us that activate our behavior and direct it toward one goal rather than another*”.(Phares and Chaplin, 1997. 434). Brown (2007) argues that motivation is at the heart of any learning process in general and, consequently, he sees the need to investigate how to create, foster, and maintain motivation . In addition to that, Thornbury (1999) considers motivation one of the basic principles for learning English, and believes that learning English cannot take place under any conditions if there is a lack of motivation. For Thornbury (1999), “*it all depends on the teacher’s role since it’s the teacher’s job to*

The Review of the Literature

choose tasks and materials that engage learners.” (Thornbury, 1999 :26) . In the context of defining motivation, Slavin (2001) states that *“the best lesson in the world will not work if students are not motivated”* . So Most of the motivation definitions we have mentioned insist upon its powerful role in the process of learning.

2. Types of motivation:

Motivation is divided into Two main types: intrinsic and extrinsic motivation Which are rooted in self determination theory and have been identified by different scholars. These types are explained in the following paragraphs.

a. Intrinsic motivation:

It is motivation to do something when we do not have to perform the task. When students are intrinsically motivated , they do not need a reward because the activity in itself is a rewarding. Many studies state that motivation depends on personal interest. Deci and Gagné (2005) say that *“motivation refers to engage in an activity because it gives joy, pleasure, and satisfaction while doing it”* (Deci and Gangné , 2005 : 331-362). It is related to the individual internal feeling that pushes someone to do the task and gain knowledge rather than separable outcome. According to the longman Dictionnary (343) it refers to intrinsic motives to train and perform include enjoyment and the inherent satisfaction associated with the activity means that enjoyment of language learning itself. Slavin (2006) confirms that:

Classroom instruction should enhance intrinsic motivation as much as possible” that is to say, gaining student’s attraction and inquisitiveness when delivering a lesson or a lecture depends on the way teachers systematize the lectures and lessons through using apposite methodology and make them apparent to students to be grasped clearly. In addition to that, teachers are asked to use a variety of interesting presentation modes.(Slavin,2006:336)

The Review of the Literature

by this is meant, using a variety of media such as graphics, audio, video, movies or computers in order to raise student's interest level because they appreciate and often expect a variety of media, moreover rich media materials boost students comprehension of complex topics and leads to increase memorability.

In a study made by T.J Shuell and S.L Farber in 2001, in which they examine the attitudes of over 700 college students toward the use of computer technology in twenty courses representing a wide range of academic disciplines. Students were generally very positive about the use of technology, although females rated the use of technology lower than did their male peers. However, not everyone is excited about the new technology. It is important to keep in mind that a poorly developed and/or executed use of multimedia can do harm more than good because motivation is also influenced by teachers beliefs, if they believe that they are not able to influence students' behaviors during the learning process they will be less supportive, less friendly and less fair to students.

b. Extrinsic motivation:

Many researchers suggest that extrinsic motivation has a relation with external factors. Extrinsically motivated students desire to achieve a particular outcome, they perform an act in order to gain something outside the activity itself, that is “ *the performance of an activity in order to attain some separable outcomes*” .(Deci and Ryan, 2000 : 55).

According to the Longman dictionary (343) driven by external factors such as parental pressure, societal expectations, academic requirements, or other sources of rewards and punishments. (Longman dictionary : 343). Providing learners with extrinsic incentives will boost intrinsic motivation in them which is an extremely fundamental task that teachers must cope with during the learning process. Slavin (2005) defines an extrinsic incentive as “*a reward that is external to the activity, such as recognition or good grade.*”

The Review of the Literature

(Slavin , 2005 : 348). In other words intrinsic motivation is more important and powerful than extrinsic and is highly correlated with extrinsic motivation. Moreover, if students are not intrinsically motivated, the teacher can make them extrinsically motivated.

To sum up, extrinsic motivation is “*fueled by the anticipation of reward from outside and beyond the self*”. (Brown , 2007 : 172). While intrinsic motivation is doing “*something because the act of doing it is enjoyable in itself*” (William and Burden , 1997:136). In language learning, students who show a great deal of interest when learning a foreign language and a great deal of excitement when practicing it are “intrinsically motivated”. However, those who just learn the language to gain parents’ appreciation or teachers’ praise are “extrinsically motivated”.

3. Multimedia advantages in English teaching and learning:

The application of multimedia technology in English teaching and learning offers many beneficial purposes and advantages that are suggested by many authors. In traditional English classroom, teachers have to spend time on writing the vital language points and important information on the chalkboard. In the multimedia classrooms, the teacher can use the button and keyboard to show significant content in a few seconds as long as he or she is familiar with the operation of multimedia and this frees the teacher from the routine tasks. It also increases learning effectiveness,(J.J. Stone and L. Milne, 1995) state that “*the use of video has been effectively develop listening skills and grammar*” (J.J. Stone and L.Milne,1995 : 315-329). It offers significant potential in improving personal communications, education and training efforts, and the use of teacher - controlled multimedia tools increase the amount of communicative discourse in classroom by both teachers and student and allow them to become designers in their learning process, using tools to access and interpret information, organizing their personal knowledge, and represent what they know to others. R.E Mayer and

The Review of the Literature

J.L.Plass (1995) state :

In this multimedia environment, students will become more active and autonomous. they will be engaged in the language learning effectively via the attractive pictures, animation or sound. They collaborate with their classmates to solve a problem or complete a project in a relaxing environment and students can learn on their own according to their plans or purposes and teachers can act more as a guide rather than a knowledge - giver. This environment increases the effectiveness of language learning and teaching. (R.E Mayer and J.L.Plass ,1995: 25- 36).

Since multimedia is the combination of sound , text, computer data, animation video, ect. Teachers have multiple conveying and displaying means to present the teaching material to arouse students interest , which would make the whole class more effective G. Lu, H.H. Wan and S.Y. Liu (1999) state that “*computers can display the written text and use sounds, pictures, and video simultaneously to convey the input in different ways, which assists students to understand the information more easily*” they add “*through simulation and other technique, computers can present abstract things in a concrete way Besides, computers also have access to various types of aids, such as dictionaries, pictures, graphs and voice*”. (G. Lu, H.H. Wan and S.Y. Liu. ,1999 : 41- 45).

Conclusion:

This chapter has deal with the review of literature in which we have shed light on Multimedia learning and its role in triggering students’ motivation. This chapter also highlights the important role of teachers who are under the background of effective education who can use advanced educational theory and fulfill the target of English by utilizing modern education technology reasonably to result in complete effective language learning and help students become independent, confident and responsible on their own learning process. On the basis of all these points tackled in this review, we attempt to investigate the impact of using multimedia technology in motivating first year master “Applied Linguistics and Social Semiotics” students of English at MMTO.

The Review of the Literature

In the next chapter, we are going to deal with the research design and methodology where we will explain the procedures of data collection and data analysis.

RESEARCH DESIGN AND METHODOLOGY

Introduction:

This chapter is methodological. It deals with the methodology and research design of the study. The chapter describes the context of our investigation. It also gives information about the sample population under study. The sample is concerned with first year master Applied Linguistics and Social Semiotics students and their teachers. Furthermore, it explains the procedures followed for data collection which consist in a questionnaire for the students and an interview with the teachers. At the end, it explains the data analysis methods conducted in the present study. The mixed method is used. The quantitative data are analysed by using a statistical method. While the qualitative content analysis (QCA) is used to analyze and interpret the open ended questions of the questionnaire and the interview.

1. The context of the investigation:

The investigation takes place in real context in the department of English at MMUTO.

The sample of this investigation consists of the first year master semiotics students at the department of English at MMUTO.

2. The participants:

2.1. The students:

The target population under study is first year master Applied Linguistics and Social semiotics students at the department of English at Mouloud Mammeri University of Tizi Ouzou. They consist of sixty five (65) students divided into three groups. We distributed our questionnaires to students of the three groups who are randomly chosen. In fact it was difficult to deal with all the students, so, we dealt only with 45 students, however we collected only 31 questionnaires.

2.2 The teachers:

In our research study, we have conducted a structured interview with semiotics teachers, a sample of four (04) teachers is used to investigate this study.

3. Procedures of data collection:

3.1 The interview:

Generally speaking, an interview is a direct face to face attempt to obtain reliable and valid measures in the form of verbal responses from one or more respondents prepared to extract extended responses. It is a conversation in which the role of the interviewer and the respondent change continually.

The teachers' interview:

The teachers' interview is intended to investigate the teachers' opinions about the use of multimedia technology in the classroom and its role in motivating students. The interview is composed of nine (09) items.

3.2. The questionnaire:

Generally speaking, a questionnaire is a means of collecting data. In Walber's words (1995) a questionnaire can be self administrated and can be used to survey a large group of people at one time and can be distributed by mail or by hand.

Questionnaire items should be clearly stated and the questions can be open-ended where the respondents feel free to answer the way they want; or closed-ended that require from the respondents to choose one or more choices that are provided in the questionnaire.

The students' questionnaire:

The students' questionnaire aims at finding out whether multimedia is used in their classrooms and if they feel motivated in a multimedia environment.

The questionnaire contains open- ended questions and closed- ended ones and multiple choices where the participants have to tick in the box the appropriate answer. The students' questionnaire is composed of fourteen (14) questions and it consists of two (02) sections. The first section is about the students' attitudes toward using multimedia in classrom, the second section deals with the students' attitudes towards multimedia learning .

4. Procedures of data analysis

4.1. statistical method:

For the analysis of the quantitative data gathered through the questionnaire; the results are highlighted by means of histograms which make visible both the number of answers and their related percentages.

We proceeded in the calculation of the percentage using the rule of three The rule of three is applied as follows:

$$X = \frac{Z \times 100}{Y}$$

X is the calculated percentage, Z is the value of the similar answers, and Y is the total number of the participants. And for open ended questions, we will interpret the data using Qualitative Content Analysis.

4. 2 Qualitative Content Analysis:

There are a number of procedures used by qualitative researchers to analyse their data. Zoltan (2007) argues that *“qualitative research involves data collection procedures that results Primarily in open- ended non numerical data which is then analyzed primarily by non statistical methods”*. (Zoltan, 2007:24). Qualitative content analysis (QCA) is used in this study. The analysis of the open-ended questions is based on the conventional

Research Design and Methodology

approach to content analysis. This method involves the identification and interpretation of data that reflect the participants' perception.

We have also relied on Richard. E. Mayer's theoretical design named : Cognitive theory of multimedia learning, and have selected five (05) among its twelve principles of instructional design to implement our students questionnaire and teachers interview. These principles are:

- *Multimedia principle* which presents an explanation using two modes of representation.
- *Temporal contiguity principle* which states that pictures and words should be presented simultaneously.
- *Coherence* which says that multimedia learning is more effective when the presented content is aligned with the instructional objective.
- *Spatial contiguity principle* which insists on presenting words and pictures close to one another.
- *Redundancy principle* which states that learners learn better when graphics and narration are presented without texts.

Conclusion:

In this chapter the research design and the research method of this study have been described. It presents the data collection procedures which are the questionnaire for the students and an interview for the teachers. It describes also the data analysis procedures. The close-ended questions are analysed using a statistical method. Furthermore, the open ended questions are interpreted with the Qualitative Content Analysis.

The results obtained from these data procedures will help to investigate the use of multimedia technology with first year master Applied Linguistics and Social Semiotics

Research Design and Methodology

students and also to know if multimedia could help to motivate the students. In the next section we will try to discuss and analyse the collected data.

THE PRESENTATION OF THE FINDINGS

Presentation of The Findings

Introduction :

This chapter deals with the presentation of the findings obtained from the questionnaire we have administered to the students and the interview we have conducted with the teachers

The aim of this chapter is first, to highlight the use of multimedia technology with the first year master Applied Linguistics and Social Semiotics students and then, to see whether multimedia use motivate them.

The findings are presented by percentage and displayed in diagrams. This part is divided into two sections. The first section is devoted to the presentation of the findings of the questionnaire designed for students. And the second section of this chapter is devoted to the results obtained from the interview conducted with the teachers.

Presentation of the findings :

1. The students' questionnaire

Section one : students attitudes towards using multimedia in classroom

Question one: Have you heard about multimedia learning?

a). Yes

b). No

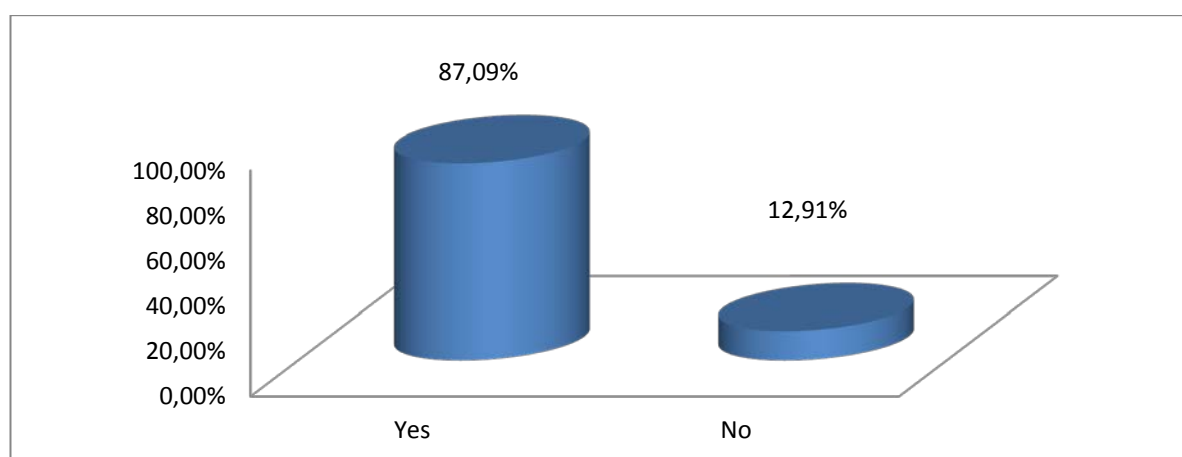


Diagram (01): students' familiarity with multimedia learning.

Presentation of The Findings

Twenty seven (27) students making up (87,09%) claim that they have heard about multimedia learning while four (4) students representing (12,91%) have not heard about it.

Question two: Is multimedia used in your classroom ?

a). Yes

b). No

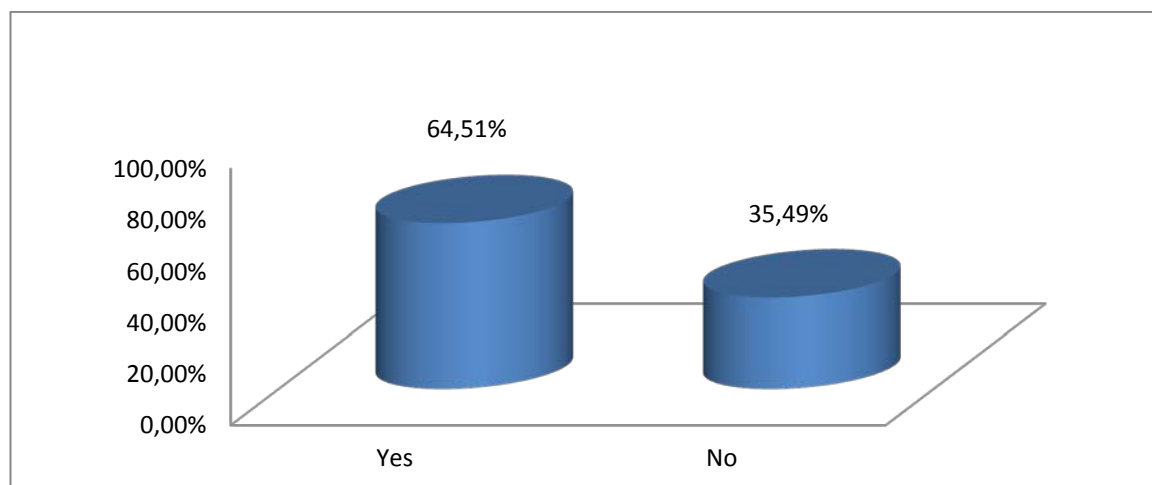


Diagram (02) : The use of multimedia in the classroom.

Through this question, we intended to know whether multimedia is used in classroom or not. Twenty students making up (64,51 %) say that multimedia is used in their classroom. Whereas eleven students about (35,49%) say it is not used in their classroom.

Question three : If yes, Do you think that projects should be presented using multimedia technology?

a). Yes

b). No

please, say why ?

Presentation of The Findings

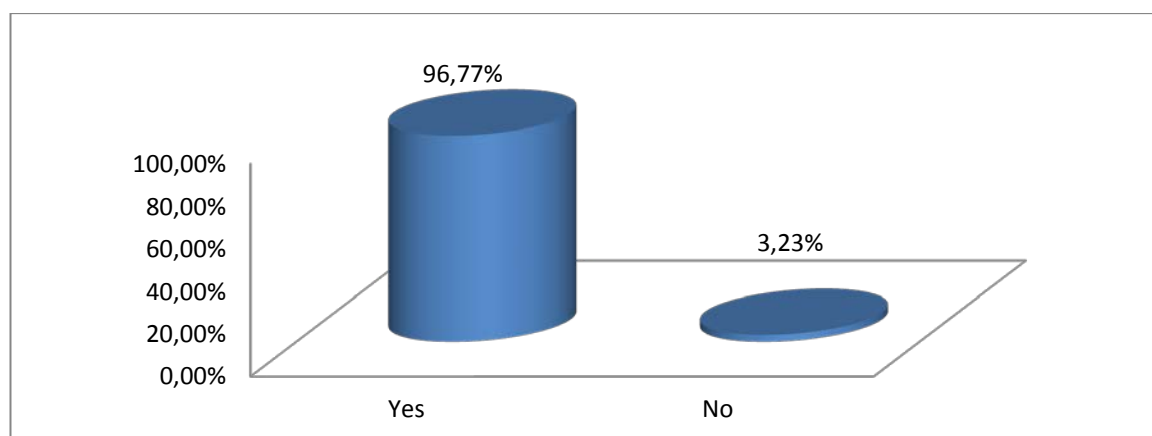


Diagram (03) : Students' opinion about the presentation of projects using multimedia.

The majority of students (96,77) said that projects should be presented using multimedia. One (01) student (3,23) selected “No” it should not.

Question four: Does the use of multimedia technology make the lesson interesting ?

a). Yes

b). No

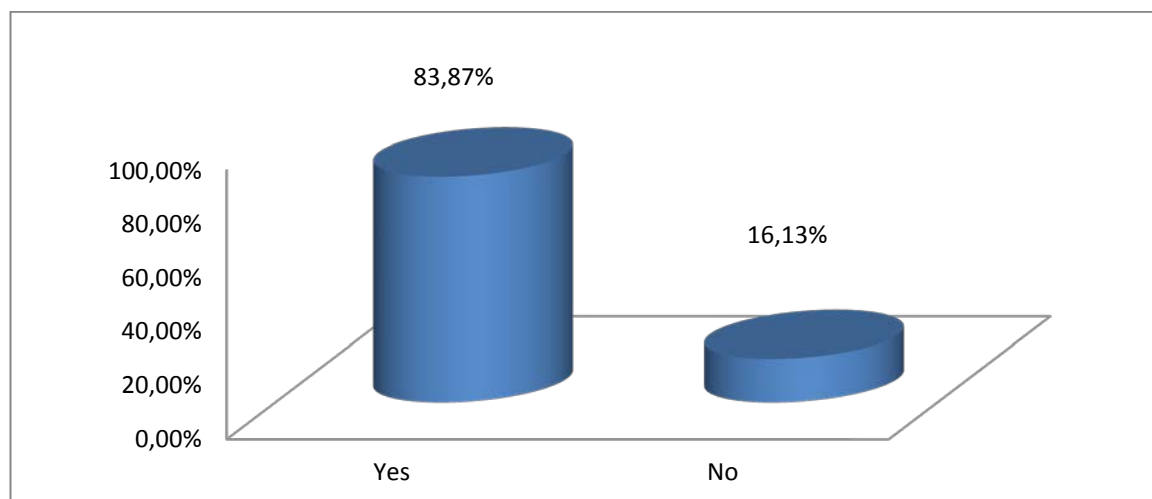


Diagram (04) : students' opinions about the interestingness of a lesson presented by multimedia.

The results indicate that twenty six (26) students (83,87%) said that the use of multimedia makes the lesson interesting. Five (5) students (16,13%) said that it does not.

Presentation of The Findings

Question five : As a learner, do you think that the use of multimedia technology in classroom is:

a). Effective

b). Non effective

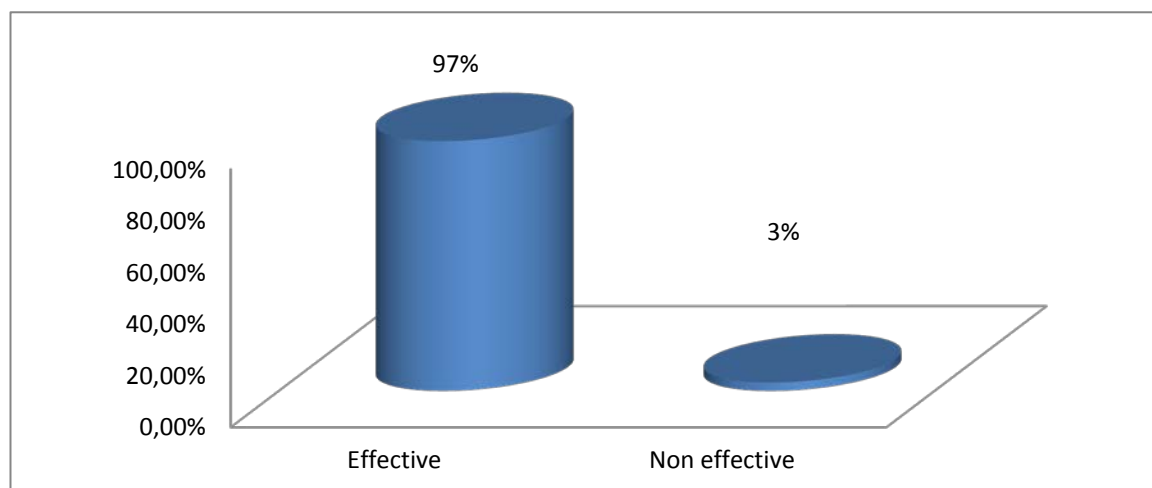


Diagram (05) : students' opinions about the effectiveness of multimedia.

The results show that thirty (30) students representing (96,77%) said that multimedia is effective. One student (01) said it is not effective.

Question six: Does multimedia motivate students in EFL classes?

a). Yes

b). No

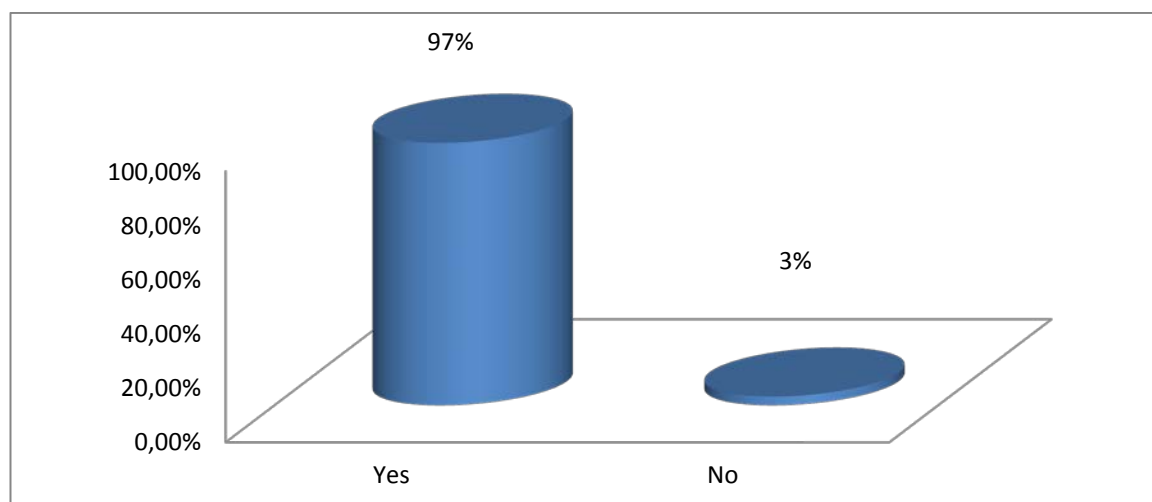


Diagram (06) : students' opinions about multimedia motivation in EFL

Presentation of The Findings

The results show that more than half of the students (96,77) said that multimedia motivates them about EFL. While one (1) student said it does not.

Question seven: When working using multimedia, do you feel?

- a). Very motivated b). Motivated c). less motivated d). not at all motivate

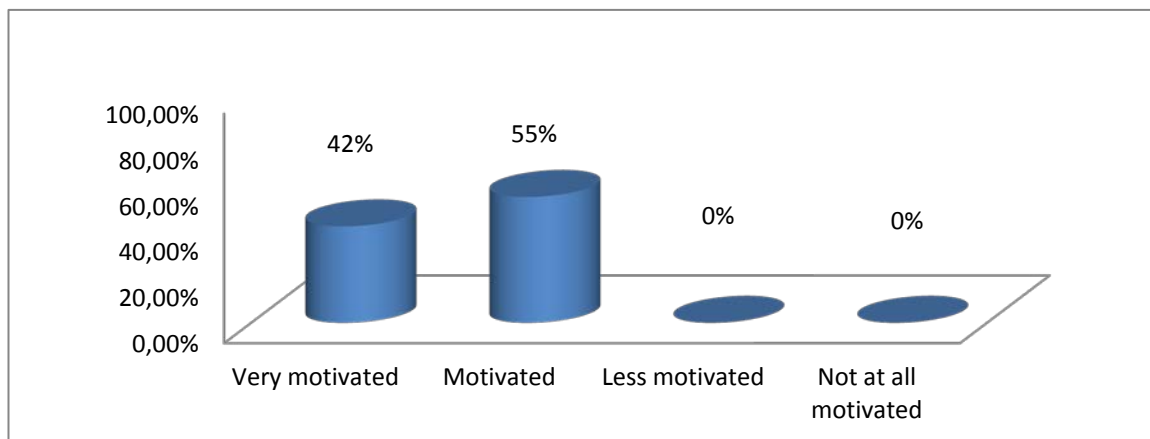


Diagram (07) : Students' feelings when working with multimedia.

Thirteen (13) of student's making up (41,93%) admit that they are very motivated when working with multimedia. While seventeen (17) of students representing the majority with (54,83%) feel motivated.

Question eight : Do you think that multimedia devices should always be used in EFL classrooms to increase your motivation?

- a). Strongly agree b). Agree c). Strongly disagree d). Disagree

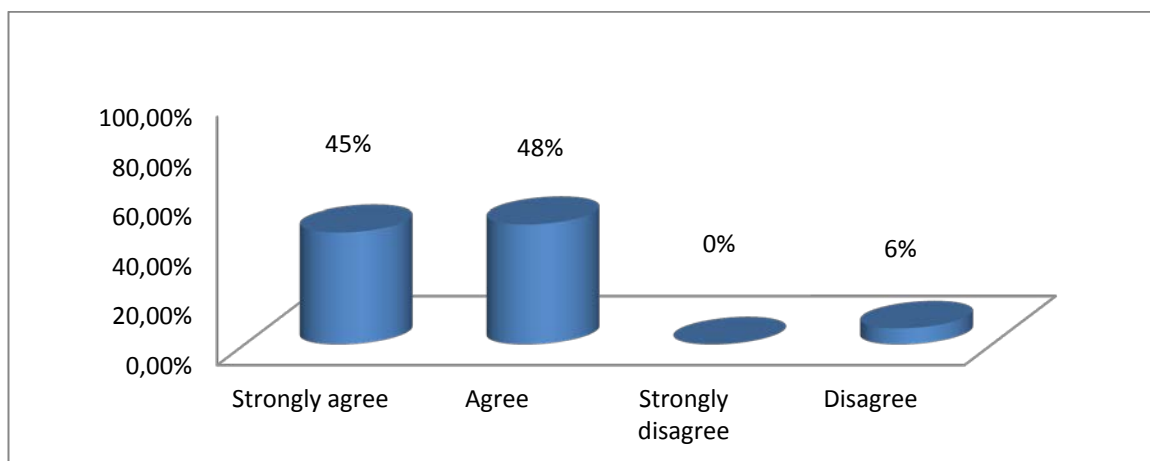


Diagram (08) : students' opinions about the use of multimedia devices

Presentation of The Findings

The majority of the students ,about fifteen (15) agree that multimedia devices should always be used in EFL classrooms. Others strongly agree (48,38%). However two participants (02) representing (6,45%) say that they disagree.

Question nine : Do you think that computer–based lessons are more enjoyable and effective than traditional lessons?

a). Yes

b). No

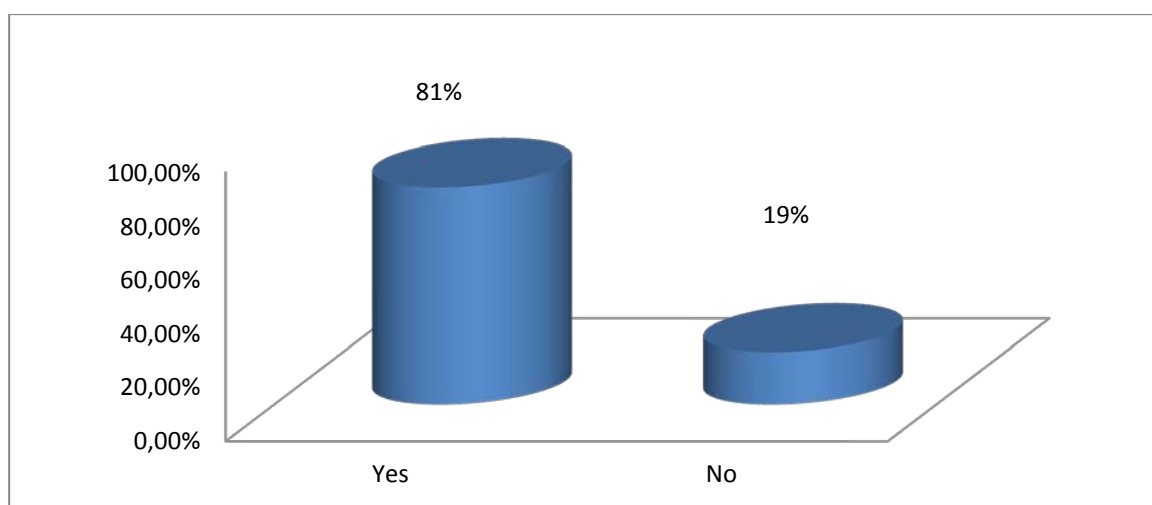


Diagram (09) : students' preference between computer based lesson or traditional lessons.

The results reveal a high proportion of (80,64%) who said that computer based lessons are more enjoyable. While six student's (06) representing (19,35%) answered with no.

Section two: students' attitudes towards multimedia learning

Question ten: Do you understand an explanation that is presented in:

a). Words and pictures

b).words alone

c).pictures alone.

Why?

Presentation of The Findings

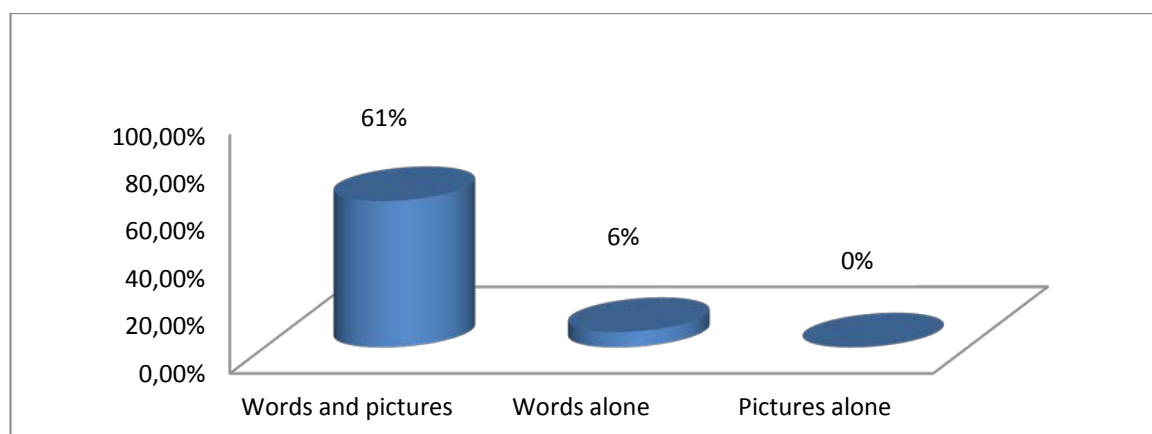


Diagram (10): Students' preferable in understanding an explanation

The majority of the students about twenty nine (29) making up (61,29%) prefer an explanation that is presented in both words and pictures. While two subjects (6,45%) say that they prefer words alone.

Question eleven: Do you better understand a text that contains captioned illustrations placed near the corresponding words ?

a).Yes

b).No

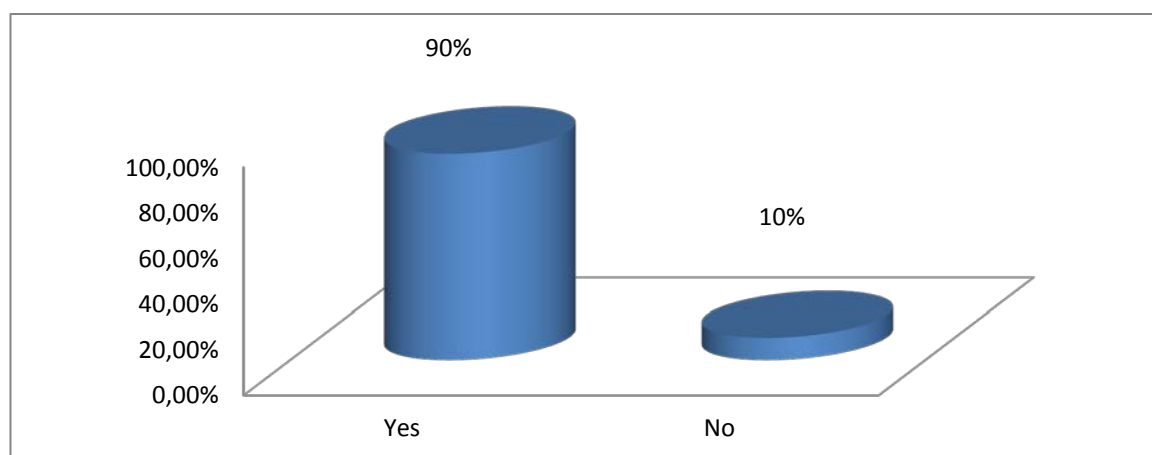


Diagram (11) students' preference in understanding a text.

The results indicate that the majority of the participants about twenty eight (28) representing (90,32%) understand better a text that contains captioned illustrations whereas three participants about (9,67%) answered with no.

Question twelve: Do you better understand when words and pictures are presented:

Presentation of The Findings

a). Simultaneously

b). Successively

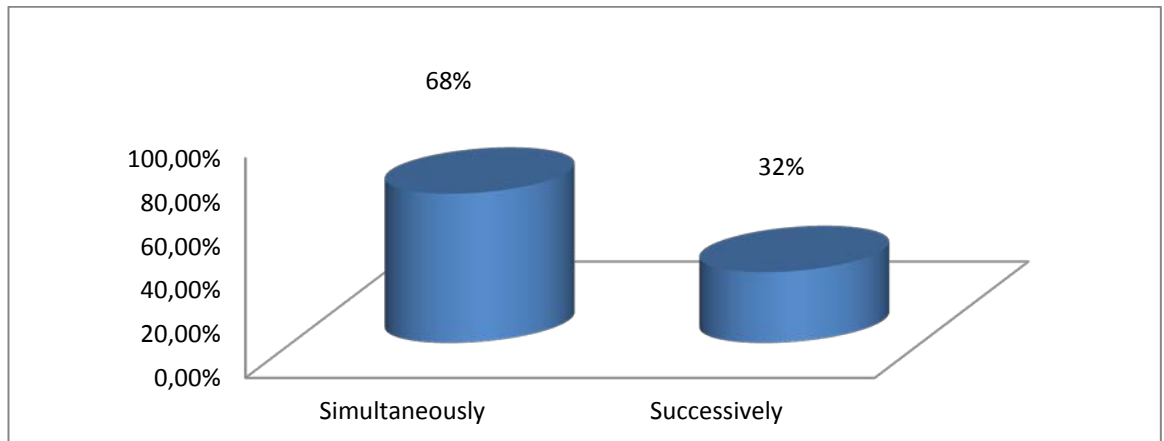


Diagram (12) : student's preference when learning with words and pictures.

Twenty one students making up (67,74%) said they understand better when words and pictures are presented simultaneously while ten students (32,25%) state that they understand better when they are presented successively.

Question Thirteen: Do you learn better from:

a). Graphics and narration

b). narration and on screen-text

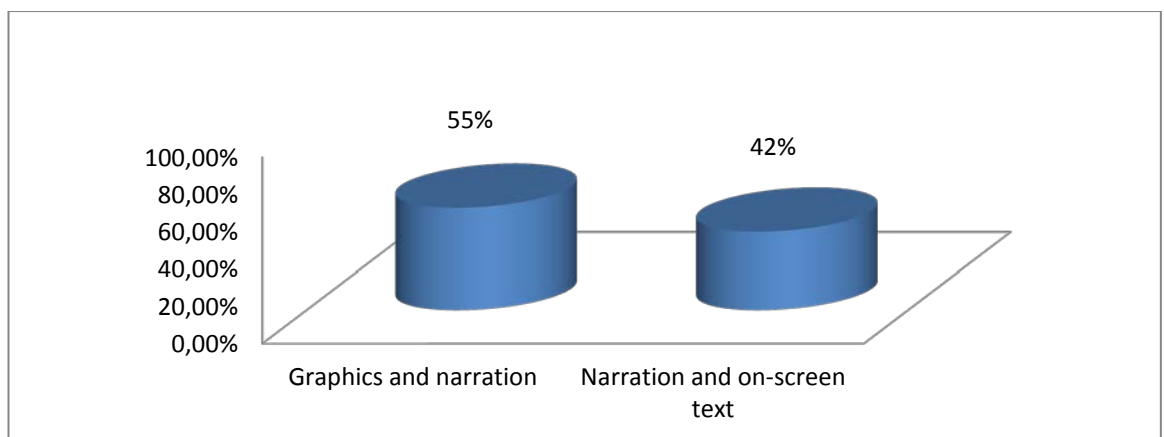


Diagram (13) : students' preference in multimedia learning.

The results show that seventeen students making up (54,83%) learn better from graphics and narrations. While thirteen participants said that they learn better from narrations and on-screen text.

Presentation of The Findings

Question fourteen: Do you learn better when extraneous (strange) words, pictures and sounds are:

a). Excluded

b). Included

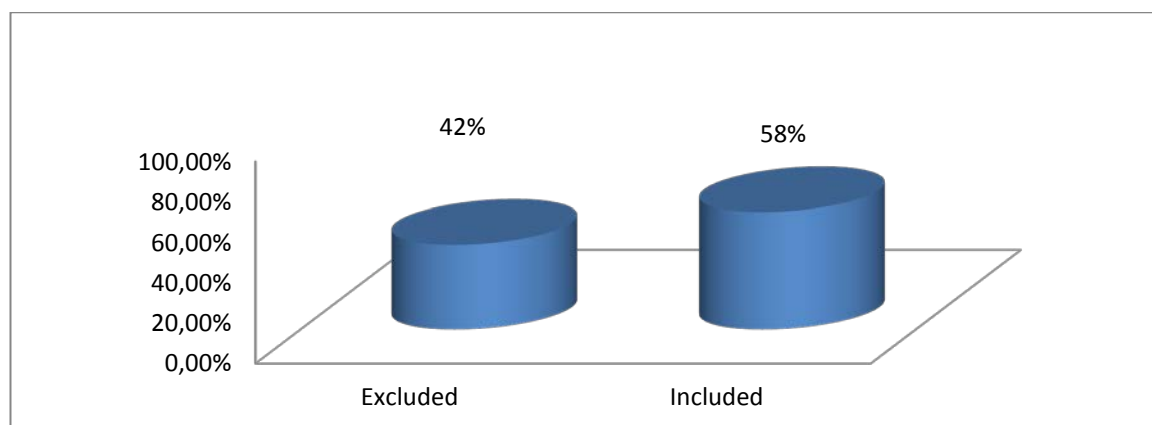


Diagram (14) : student's preference when learning with words, pictures and sounds.

The results indicate that eighteen students representing (58,06%) learn better when extraneous words , pictures and sounds are included. Whereas thirteen of the participants about (41,93%) learn better when they are excluded.

2. The teachers' interview:

The second data collection tool used in our research is the interview which we have conducted with four (04) teachers of semiotics. The interview helps us to bring more details to answer our research hypotheses and our research questions. The following are the detailed results of the interview.

Question one: how long have you been teaching in the English department?

This question is asked to know how many years the four teachers have been teaching in the English department. The answers of the teachers differ from one to another. One of them has been teaching for twenty six years. While another for seventeen years. Concerning The two others, one of them have seven years of experience whereas the last one four years only.

Presentation of The Findings

Question two :Do you use multimedia technology with your students ? Yes / No , if yes what types do you usually use, and how often ?

The aim of this question is to know if multimedia technology tools are used by teachers and how often if they do. All of teachers said that they use multimedia tools like pictures, video, computers, overhead projectors depending on the content of the lesson, but they have said they do not use them as they ought to.

Question three: in which types of courses, do you prefer to use multimedia tools?

This question seeks to know the type of courses the teachers use multimedia tools, all of them agree that the use of tools depends on the content of the lesson and the modules taught, they use it mainly in practical sessions (TD) and workshops.

Question four: does the use of multimedia attract students' attention during the class?

We asked the fourth question to know if multimedia play a role in attracting student's attention in class. The findings show that teachers agree that the use of multimedia attracts students' attention.

Question five: in your opinion, can multimedia motivate English learners? If yes, how?

All the interviewees agree that multimedia can motivate the learners' depending on the way it is used and for which purpose. They explain that the use of multimedia tools especially texts on the screen (videos) and native-speaker speech on tape attract and motivate students as they involve a movement from the traditional way of teaching (chalk and board) to a new and modern way which can be described as being multimodal which gives them the opportunity to interact with authentic material , English and situations.

Question six: do you encourage your students to work using multimedia?

According to the findings, three teachers have said that they encourage students to work using multimedia while one of them answered with no

Presentation of The Findings

Question seven: do your students find difficulties while working with multimedia? If yes, what type of difficulties do they face?

The aim of this question is to know the difficulties that students face when working with multimedia. All of the participants think that students don't find difficulties while working with multimedia because they are technology literate.

Question eight: when you present a lesson, do you prefer to provide your students with words and pictures simultaneously or successively?

The findings show that two teachers prefer to use it simultaneously rather than successively while the two others have said that it depends on the lesson presented.

Question nine : when presenting a lesson, do you prefer to provide your students with words alone or with words and images? Could you explain why please.

All of the teachers have said that it depends on the type of the lesson and the content being taught , but they have explained that the use of both words and pictures help students better understand the lesson that is presented and motivate them to learn English.

Conclusion:

This chapter has presented the results obtained from the questionnaires answered by thirty one (31) students in the department of English at Mouloud Mammeri University of Tizi Ouzou and the results obtained from the structured interview conducted with four (04) teachers who teach different modules for first year master semiotics students. it is clear that the majority of first-year master students in the department of English at MMUTO are motivated when multimedia is used in classroom. In addition the majority of the teachers in the department of English at MMUTO use multimedia . which may be an efficient technique to motivate the students. These findings are going to be discussed in details in the following chapter.

DISCUSSION OF FINDINGS

Discussion of The Findings

I. Discussion of the student's questionnaire

1- Students attitudes towards the effectiveness of using multimedia in a classroom

The results of the first section have revealed important facts about students' attitudes toward using multimedia in a classroom. It actually reveals positive results concerning students' familiarity with multimedia learning. The majority have answered that they have heard about multimedia learning. From these findings we can conclude that the big majority of the respondents are more likely to have positive attitudes and belief towards multimedia learning and this surely has an impact on the students' learning outcomes like cultivating their interest in studying. whereas some of them haven't heard about multimedia learning maybe because their teachers don't often use multimedia devices in classroom. the results of the second diagram (see diagram 02) confirm this evidence and show that eleven students representing (35,49%) answered that multimedia is not used in their classroom.

The results of the question (3) dealing with students' opinions about the presentation of the projects using multimedia revealed a slight different percentage. The big majority of the respondents (96,77%) express their appreciation of using multimedia when presenting projects. One student explained "*it helps me to understand better and be understood by other students when doing the project*". Another one affirmed "*because it arouses my interest*". So students are aware of the important role that multimedia technology plays in the learning process, especially in this century during which technology has an impact on people's daily life not only in language learning but in many other fields as well. On the whole, the majority of the students believe that technological devices should be used to present research-based projects. This result shows that with the use of a computer, a course can be prepared and

Discussion of The Findings

presented in different ways as the possibilities offered by digital computers make a course more interesting. As we progress in our analysis to the findings, we observe that the majority of the students affirm that the use of multimedia technology in a classroom is effective with the percentage of (96,77%).

Our explanation of this state of fact is that students who responded positively are more likely technology literate, and those who said that multimedia technology is not effective can be explained by the fact that they remain unfamiliar with the use of multimedia in their social and school environment. This may probably be due also to the traditional teaching methods and techniques they were used to be taught with ,in the past, thereby findings difficulties in using such multimedia devices and tools. In this case, teachers have to use these technology devices progressively.

The answers to the question related to students' motivation when working with multimedia shows in diagram (07) that the majority of the participants (54,83%) are very motivated when working using multimedia while the rest of the students are just motivated. This result answers our second research question and confirms our third hypothesis which states that multimedia could help motivate students. So, technology integration has the potential to increase students' motivation , because when working with technology, the students feel confident in their ability to accomplish their tasks due to their familiarity with the technology . The students are excited about the opportunity to test their skills and view the task as challenging and engaging. In addition to this the use of technology in class makes them responsible of their own learning process.

Consequently, the results reflect the constructivist view of learning as an active process and the learner as an active learner which confirms the third assumption of the cognitive theory of multimedia learning presented by Richard. E. Mayer

Discussion of The Findings

in which he states that learning as an active- processing system occurs when learners engage in active learning.

We can conclude that multimedia is very helpful and fruitful in education thanks to its characteristics of interactivity, flexibility, and the integration of different media that can support learning.

2- Student's attitudes towards multimedia learning

In the final part of the students questionnaire, we investigated the most Important principles when learning with multimedia . Actually , our findings displayed in diagram (10) show that most of the first year master semiotics students (61,29%) understand better an explanation that is presented in both words and pictures, which makes a classroom environment interesting and stimulating rather than boring when one mode of presentation is used exclusively.

In other words, the first principle “multimedia learning” mentioned in our research design which favors the combination of words and pictures for a better understanding of an explanation rather than the presentation only in words or one mode of representation, has been confirmed.

This is sustained by Larkin and Simon (1987) who state that “ among the advantages of multimedia are having the ability to choose among media to present well-structured information” (Larkin and Simon, 1987:65), and Mayer (2001) who says that “ it has been proven that a mixture of words and pictures always integrate a large amount of information” (Mayer, 2001: 55). This is explicated by one student in the simplest way in the following words: “ there are words that we do not understand but with pictures we understand better” another one added “ sometimes there are some explanations that are too broad and contain words that are difficult to understand , so if the pictures are used within words we will not get confused,

Discussion of The Findings

because we have the mental image in our brain". From the results displayed in (diagram 11) it appears that the majority of the students assert that they understand better a text that contains captioned illustrations placed near each other. This can be explained by the fact that when the teacher explains the steps of a particular process with words and pictures separately students' attention is split which can create a cognitive overload and exceed our cognitive capacity. Mayer (2009) . So when the teacher presents the narration and explanation at the same time, the learner can see and hear at the same time which creates what is called "temporal contiguity".

Through the fifteenth question included in the questionnaire ,we attempted to know if students learn better from graphics and narration or narration and on-screen text .The results show that seventeen students making up (54,83%) learn better from graphics and narrations, while thirteen participants said that they learn better from narrations and on-screen text. So, students' answers were different maybe because different students learn in different ways, which is something that teachers should take into consideration in order to avoid difficulties that students may face in understanding an explanation or a lesson presented in the class.

In order to avoid this problem, teachers should present information in different formats or modes of representation. In this perspective, Mayer (2009) states :“ *by using multiple representation formats, instructors can accommodate each student's preferred and learning style*”.(Mayer, 2009: 121).

The results of the last question dealing with students' preference in learning when extraneous words, pictures and sound are included or excluded revealed different percentages. The results show that eighteen students (58,06%) learn better when extraneous words , pictures and sounds are included, whereas thirteen of the participants (41,93%) learn better when they are not included. The elimination of non- essential information

Discussion of The Findings

during the explanation of a lesson can improve learning and make the lesson easier to understand because learners will focus on the most essential elements and process only the relevant and important information that he/she can use later.

II. Discussion of the teachers' interview

The second data instrument we used in our study is the interview with teachers of semiotics. Indeed, the interview helped us to bring more details into our research. The findings of the interview section revealed important points and the answers are very Significant to the teachers use of of semiotics who use multimedia with their students.

Multimedia tools like pictures, videos, computers, overhead projectors are generally used in classrooms. But they do not use these tools as they ought to, maybe due to the shortage of time or the overloaded program. Teachers interviewed answered that they use these devices mainly in practical lessons (TD) and workshops to make sure that all students are engaged in the learning process and attract their attention .

According to their experience as teachers of semiotics , they say that multimedia can motivate students, but this depends on the way multimedia are used and for which purpose .So teachers of semiotics are aware of the important role as of multimedia tools in class in terms of students' motivation .They explain that using modern technology helps to shift from the traditional way of teaching to a new multimodal way which gives students the opportunity to interact with authentic material. this reflects the constructivist view in the sense that teachers incite their students to construct knowledge by themselves.

In relation to difficulties that may face when working with multimedia, the teachers teachers say that students don't find difficulties when working using multimedia because they are technologically literate and they enjoy learning with multimedia.

At the end of the interview we asked the teachers about their preference , when working with words and pictures whether simultaneously or successively. Two teachers said that they

Discussion of The Findings

prefer using them simultaneously may be due to their preference or teaching experience while the others confirm that it depends on the lesson presented. However, all of them confirm that the presentation of a lesson using both words and pictures is a really a good way to help students understand better maybe because it breaks the routine of using only one mode of representation.

Conclusion

The discussion of both the results of the questionnaire and the interview has provided answers to the research questions. They have showed that the teachers of semiotic use multimedia with first year master semiotics at the department of MMTO. both teachers and students have claimed help in motivating learners. our research has revealed that a well used multimedia technology is the best way for students to be motivated and learn effectively. Moreover, the role of the teacher in a multimedia environment is a significant one because matching multimedia tools and the appropriate teaching methodology can arouse students' interest in studying and motivating them in EFL learning. A teacher in multimedia environment should know the needs of his students and develop his expertise to use different types of multimedia and make the right combination of multimedia tools and make sure that so as to trigger students' motivation to learn.

GENERAL CONCLUSION

General conclusion

The study has investigated the role of multimedia in motivating university EFL learners. In our research, we have opted for a case study. Our focus is the first year master Applied Linguistics and Social Semiotics students at the department of Mouloud Mammeri University. The first objective of the study consists in investigating whether multimedia is used with M1 Semiotics students and if it helps them to be motivated. Our second objective is to determine whether the use of multimedia is effective on the students English language learning.

In short, our study attempted to shed light on the use of multimedia as a means for learning English as a foreign language, and whether this technique boosts students' motivation which represents a basic element in the acquisition of a language.

For the sake of answering the advanced research questions and confirming or refuting the hypotheses suggested in general introduction, the study relied on a mixed research method combining the quantitative and qualitative research method. We administered a questionnaire for first year master semiotics students to their feedback concerning this issue, and we conducted an interview with semiotics teachers to get answers about the implementation of multimedia in their classes.

On the one hand, we adopted the rule of three for the quantitative data analysis for the sake of obtaining statistical results. On the other hand, the qualitative content analysis (QCA) was used to interpret the data gathered from the open-ended questions of the questionnaire and the data of the interview with teachers.

Chapter one is concerned with some theoretical hints related to multimedia and their use in the educational settings. We started defining the concept of multimedia, and the diversity

General conclusion

of implementing this device. We have also tried to stress on the tight relation between multimedia on the one hand, and learning, cognition, communication, on the other hand.

The results of the questionnaire have shown that the majority of the students claim that they effectively use multimedia in class, and that they are motivated when the teacher uses multimedia and computer-based lessons are more enjoyable than the traditional lessons.

Concerning teachers' interview, the results have provided us with the following answers:

The teachers use many multimedia devices such as pictures, overhead projectors, and computers. They claim also that authentic materials attract more attention from their learners. To sum up, students' answers have shown that teachers of semiotics generally use multimedia with first year master students at the department of MMTO.

The discussion of the results of the questionnaire and the teachers' interview have revealed that a good use of multimedia technology is the best way for students to be motivated and learn effectively especially when the multimedia devices have been diversified. Moreover, the role of the teacher in a multimedia environment is a significant one because matching this multimedia tools and the appropriate teaching methodology can arouse students' interest in studying English as a foreign language as students understand better and especially when the materials used are realistic or authentic. In this respect, teachers in a multimedia environment should know the needs of their students and develop their expertise combining different multimedia tools and make sure that multimedia elements work well together.

We hope that the results we have reached through this investigation will open opportunities for further research in this area of study.

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Appendices

Appendix 1 : The students' questionnaire

Dear students:

This questionnaire is part of our research, you are kindly invited to answer the present questionnaire that aims to figure out the role of multimedia to motivate Master 1 Semiotics students at the department of English at Mouloud Mammeri University of Tizi-Ouzou. The results of this questionnaire will be used for academic purposes. Thank you in advance for your collaboration.

Section one: students' attitudes towards the effectiveness of using multimedia in classroom

1- Have you heard about multimedia learning?

☐ Yes

☐ No

2 - Is multimedia used in your classroom ?

☐ Yes

☐ No

3- If yes, do you think that projects should be presented using multimedia technology?

☐ Yes

☐ No

Please say why ?

Answer.....
.....

4- Does the use of multimedia technology makes the lesson interesting ?

☐ Yes

☐ No

5- As a learner, do you think that the use of multimedia technology in classroom is:

☐ Effective

☐ Non effective

6- Does multimedia motivate students in EFL classes?

Appendices

☐ Yes

☐ No

7- When working using multimedia, do you feel?

☐ Very motivated

☐ Motivated

☐ Less motivated

☐ Not all motivated

8- Do you think that multimedia devices should always be used in EFL classrooms to increase your motivation?

☐ Strongly agree

☐ Agree

☐ Disagree

☐ Strongly disagree

9- Do you think that computer-based lessons are more enjoyable and effective than traditional lessons?

☐ Yes

☐ No

Section 2: student's attitudes towards multimedia learning

10- Do you understand an explanation that is presented in:

☐ Words and pictures

☐ Words alone

☐ Pictures alone

Why ?

answer.....

.....

11- Do you better understand a text that contains captioned illustrations placed near the corresponding words ?

☐ Yes

Appendices

☐ No

12- Do you better understand when words and pictures are presented:

☐ Simultaneously

☐ Successively

13- Do you learn better from:

☐ Graphics and narration

☐ Narration and on screen –text

14- Do you learn better when extraneous (strange) words, pictures and sounds are:

☐ Excluded

☐ Included

Thank you for your collaboration.

Appendix 2: teacher's interview:

Question one :how long have you been teaching in the English department?

Question two :Do you use multimedia technology with your students ? Yes / NO , if yes what types do you usually use, and how often ?

Question three: in which types of courses, do you prefer to use multimedia tools?

Question four: does the use of multimedia attract student's attention during the class?

Question five: in your opinion, can multimedia motivate English learners? If yes, how?

Question six: do you encourage your students to work using multimedia?

Question seven: do your students find difficulties while working with multimedia?

If yes, what type of difficulties do they face?

Question eight: when you present a lesson, do you prefer to provide your students with words and pictures simultaneously or successively?

Appendices

Question nine : when presenting a lesson, do you prefer to provide your students with words alone or with words and images? Could you explain why please.

Thank you for your collaboration.