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# **The Effects of Attentional Control in Rising EFL Learners'**

## **Lectures Comprehension**

**Case Study of Master One Students of English at Biskra University**

A Dissertation Submitted in Partial Fulfilment of the Requirements for the Master Degree  
in English: Sciences of Language

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## **Dedication**

I dedicate this work, to the soul of my late mother, to my beloved father and my elder sisters: Houda and Sabrina, who were my motive to finish this work.

To all my brothers, and my other sisters for their enthusiastic support and guidance.

To the woman who raised me as one of her daughters and more,

To my stepmother and stepsister for their encouragement and support,

To my friends.

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## **Abstract**

The current study aims at describing the effects of attentional control in rising EFL learners' lecture comprehension, since it permits students to shift their attention, and inhibit the distractions. This research adopts a qualitative method, in which it describes the relationship between students' attention and their lecture comprehension. As for the sample of the study, 50 students have been chosen randomly out of a population of 300 Master students of English at Biskra University during the academic year 2015/2016. A questionnaire and an interview have been used as research instruments in order to collect data regarding the opinions of students, teachers, and a psychiatrist on the subject. The analysis and discussion of data highlighted a number of findings. First, students are exposed to a massive number of distractions, whether internal like motivation or external like the background noise. Second, students' lack of concentration can be reinforced by their teachers' strategies of instruction and motivation to focus during lectures. Third, students might help themselves using the executive functions of their attentional control, like inhibiting the distractions, shifting their attention to the relevant stimulus and updating data in accordance with their background knowledge. This research could be developed into an extended investigation regarding the impact of attentional control on students' achievement during exams.

## **List of Acronyms and Abbreviations**

AC: Attentional Control.

ACT: Attentional Control Theory.

EFL: English as a Foreign Language.

EFs: Executive Functions.

JiTT: Just in Time Teaching.

PBL: Problem Based Learning.

PSI: Personalized System of Instructions.

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Résumé

## **General Introduction**

‘Pay attention’, ‘Try to concentrate’, ‘follow me please’ and so many other expressions are often heard during lectures. It is the way lecturers address their audience to have their attention and concentration. Concentration is considered as an important psychological phenomenon in psycho-pedagogy. It is the ability of directing an individual thinking in an intended direction, to acquire an information or to focus on a specific idea. Therefore, concentration and attention are assumed to be the same. This common misconception can be explained by the fact that attention is a part of concentration; if concentration is a wide view of a situation, attention is a more precise part of it.

Teachers are doing their best to explain and to clarify the lecture; students also are doing their best to pay attention to comprehend it. Suddenly, they lose their attention and they find themselves missing a point or two and sometimes more than that. This situation is supposed to be normal due to the different factors that students are exposed to during the lecture. Students’ lack of concentration is known as an out-of-control issue, yet students and even teachers are able to control it. Students are able to eliminate the distractions using their attentional control, which is students’ ability to choose what to pay attention to and what to ignore. As teachers, there are some ways to maintain students’ interest such as motivating them to focus, and engaging them in different tasks. Since lectures can be given to a crowd or a large group of people, gaining students’ attention may seem challenging for most of lecturers, and lecture comprehension may as well, be a challenge for the students themselves.

### **1. Statement of the problem**

“In the United States lecturing is the most common method when teaching adults. And so it is all over the world” (Bligh, 1998, p. 3). In most of the universities in Algeria, lectures are a practice of teaching adults in large classrooms. Sometimes, it is the same lecture and

the same lecturer, but not the same outcomes. Lecture comprehension differs from a student to another, in terms of paying attention to the data given by the lecturer and neglecting the distractions. In this field, Irgain, and Steewart (2009) claim, “there are two sources of losing concentration” (p. 70). They classified them into two groups, internal and external distractions. Therefore, lecture comprehension is considered as a challenge for learners in their learning process. Although, it can be improved by students’ freedom of choosing what to concentrate on, or what to pay attention to. i.e. their attentional control.

It has been noticed that, EFL learners at Biskra University are facing issues concerning the lack of concentration. Due to learners’ lack of motivation, their learning environment besides teachers’ attitudes and methods of teaching. Based on a personal experience, lack of concentration is an issue that distracts the learning process. The current study describes the effects of attentional control on Master one EFL students’ lecture comprehension. It aims to help lecturers have an insight on the relationship between attentional control and students’ achievement.

## **2. Significance of the Study**

The study shows its importance for both students and teachers.

The significance of this study is to focus on how learners’ attentional control affects their lecture comprehension, and to provide students with useful strategies to decrease the difficulties of concentration.

The importance of this study is based upon the clear provided understanding concerning the role of the teacher in having students’ attention or interest as well as, to have an idea about how to deal with this issue.

### **3. Aim of the Study**

Attention and attentional control are different in the progression; attention is a random focus, in which a student can switch his or her attention from a point to another. Whereas, attentional control is a controlled focus. This study seeks to explain why students lose their attention and how can they control it. It aims at exploring what happens when attention fails, then how it could be regained, so that it can help students in improving their lecture comprehension.

### **4. Statement of the Hypothesis**

Students' achievement in their lecture comprehension is affected by their attentional control. Therefore, it is hypothesized that:

If students choose what to pay attention to, their lecture comprehension will be improved. i.e. good attentional control leads to better lecture comprehension.

### **5. Research Questions and Sub-Questions**

This present study addresses the following questions, and answers some of them:

- 1- Does attentional control affect lecture comprehension?
  - a) How do students lose their attention? and, b) how it can be rebuild?
- 2- Could lecturers effect students' attention during lectures?
- 3- What are the main factors leading to the distraction of students' attention during the lecture?

### **6. Research Methodology**

In order to confirm or reject the hypothesis, and to obtain significant information concerning the difficulties of concentration during the lecture, the descriptive method seems to be the more appropriate one to be used. As it, describes the current and present problems of the students and their learning process. Besides, this method is easy and direct in use and, hence, data on it are easily obtained and interpreted. This method is also to be used since it studies the existing relationship between the variables without any manipulation.

## **7. The Population**

The issue of students' lack of concentration is highly remarkable among Masters' students, because of the classrooms they have their sessions in. To investigate the issue of this study, Master one students of English at of Mohamed Khider University of Biskra, have been chosen as a case study because all their courses are delivered in lectures; the population consists 300 students of different ages and genders.

## **8. The Sample**

From a population of 300 students, 50 have been chosen randomly to have their opinions on the subject of attention during the lecture. Moreover, seven lecturers, who are teaching Master one students, have been chosen also to contribute their opinions on the subject of students' lecture comprehension and attention. Besides, one psychiatrist is interviewed, to provide students with some strategies to attain their attention during lectures.

## **9. Research Instruments**

To answer the research questions, two questionnaires have been used in this respect: one for students and one for teachers, to provide clear image concerning distractions of students' attention and their perception towards the teaching strategies, as well as to gain insights about some tasks, such as; warming up strategy. In order to have an expert's point of view, an interview has been conducted for gaining information about students' attention process and comprehension from a psychiatrist.

## **10. The Structure of the Dissertation**

This study includes two main parts; the theoretical part, which includes chapter one and chapter two, both are devoted for the literature review concerning attention during lectures, and the practical part, which includes chapter three.

The first chapter introduces the nature of attention, its categories and characteristics, in addition to the relationship between attention and learning. It also provides the different distractions that inhibit students' attention, and presents the executive functions of attentional control as strategies used by the students to regain their attention and help them comprehend their lectures. The second chapter is devoted to the study of lecture comprehension, it introduces lectures as a practice of teaching, in addition to its characteristics and the different aspect included in the comprehension of lectures. Moreover, it provides teachers with some strategies to maintain students' attention, and offers students some useful tips to develop their lecture comprehension. The third chapter consists of the analysis of both the students and teachers' questionnaire and the results of the interview with a psychiatrist, besides the discussion of the results and the recommendations.

### **11. Limitations of the Study**

The study was devoted to have three research tools instruments to investigate the effects of attentional control in rising EFL learners' lecture comprehension, only two instruments were used in this work, which are the questionnaire and the interview. However, the classroom observation was released due to time limitations, besides the fruitful data gathered from the two other tools were precise and accurate. Concerning the interview, it was planned to be delivered to an educational psychiatrist, but it was interviewed with a general psychiatrist because of its inaccessibility. Another important point is that the study investigates the effects of attentional control and the difficulties of concentration with a limited sample, which makes it challenging to generalize the findings to all students.

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# Chapter One

## Introducing Attention

### Introduction

Although EFL learners use relevant strategies, they still have many difficulties effecting the learning of the material. One of the fundamental difficulties effecting the process of leaning the material is concentration difficulty i.e. attention. Attention is the ability of controlling thought processes to concentrate on a task. The major point in processing an information is attending to it. Paying attention to the incoming data makes learning more effective, and allows mental processes to decode that input.

Since Attention is a wide area of research, this chapter focuses on an aspect of attention that is related to the ability of guiding and controlling one's concentration to a better information processing. The basic issues in this chapter are the nature of attention and its functions during cognition, students' distractions of attention. This chapter evaluates also the way attention is rebuilt after being distracted. It deals with the nature of attentional control, and its executive functions.

### 1.1. Attention: Definition(s)

Over the past decades, the concept of attention has known great changes, especially its use by many philosophers and psychologists. Many scholars tried to define attention from different points of views. The most significant one is that of the cognitive perspective.

Attention is a cognitive process with which one focuses or concentrates on a specific object, and excludes other objects. In this phase, Moray (1969, as cited in Levitin, 2002) points out that attention "is sometimes used to refer to the ability to select parts of the incoming stimulation for further processing" (p. 363). William (1890, as cited in Styles, 2006) also defines attention as a cognitive process of selectively concentrating on a discrete

aspect of information, while ignoring others. He states, “It is the process of mind in clear and vivid form...it implies withdrawal from some things in order to deal effectively with others” (p. 1). Attention is the process that involves selecting what to concentrate on.

Besides, attention is restricted in the ability of processing information, which is controlled. Styles (2006) states that attention is “characterized by a limited capacity for processing information and that this allocation can be intentionally controlled” (p. 16). Thus, attention is the result of shifting the input from a controlled to an automatic processing. This was the sense extracted from Styles’ point of view: “attention is an effect that emerges from the working of the whole system as inputs interact with schemata in long-term memory” (Ibid, p. 9). Attention, therefore, occurs when the information is transformed to the long-term memory. According to Ratey (2001, cited in Throne, & Thomas, 2009), attention is more than simply noticing incoming stimuli. It includes a number of procedures including shifting perceptions, and adjusting multiple insights, in accordance with personal matters and interests. Attention in general involves not only noticing and attending to one main stimuli, however, it also includes neglecting and disregarding others.

From the already mentioned definitions, attention is a cognitive task that involves a set of procedures to process an information, focusing one’s attention on one idea among many, while neglecting others. Anderson (2015) says that, “our cognitive processes must select which pieces to attend and which to ignore” (p. 54).

## **1.2. Attention: Characteristics**

According to the preceding definitions, attention can be characterised as a selective mental activity that is changeable. It shifts constantly from one object to another. This characteristic is known as voluntary attention (“Learning Disabilities”, 2001). Voluntary attention or active attention is a state of preparedness and alertness; it involves effort

imposed by different motives. It focuses consciousness on a particular object, and prevents others. In short, voluntary attention is a conscious effort of the mind. On the other hand, non-voluntary attention is characterized by involuntary process, with no mind efforts. It is considered passive since it is directed by external actions. Non-voluntary attention is characterized by paying attention out of curiosity; it is effortless, and released (Thorne, & Thomas, 2009). Attention is classified in two main categories.

### **1.3. Attention: Categories**

Attention is categorised to two main kinds, divided and focused attention. According to Levitin (2002), divided attention is used when attending to different information in one time. However, focused attention is used when one is exposed to more than two stimuli at the same time, and attends to only one of them. Eysenck and Kean (n.d., as cited in Levitin, 2002) provide a schema in which they explain how different topics are related to each other in attention (figure 01). Attending to one stimulus in focused attention can be visual object or spoken message. Visual attention is limited since we attend only to what we are looking at. However, auditory attention is not limited since we are capable of selecting what to listen to. The ability of selecting what to listen to is called selective auditory attention (Styles, 2006). For instance, Attending to different stimuli in one time involves both divided and focused attention. Nevertheless, focused attention is more applicable for attending to one input, which might be visual or spoken. The ‘cocktail party phenomenon’ studied by Cherry (1953, as cited in Groome et al., 1999), is a convenient example, it represents individual’s ability to maintain attention to a single source of simulation. The cocktail party phenomenon is a bunch of background conversations, in which the individual is able to attend to a single conversation. Besides, the ability to switch the attention as a result of hearing one’s name spoken. In this example, it is clear that focused attention is maintaining attention to one particular source, and divided attention is processing two or more competing inputs.

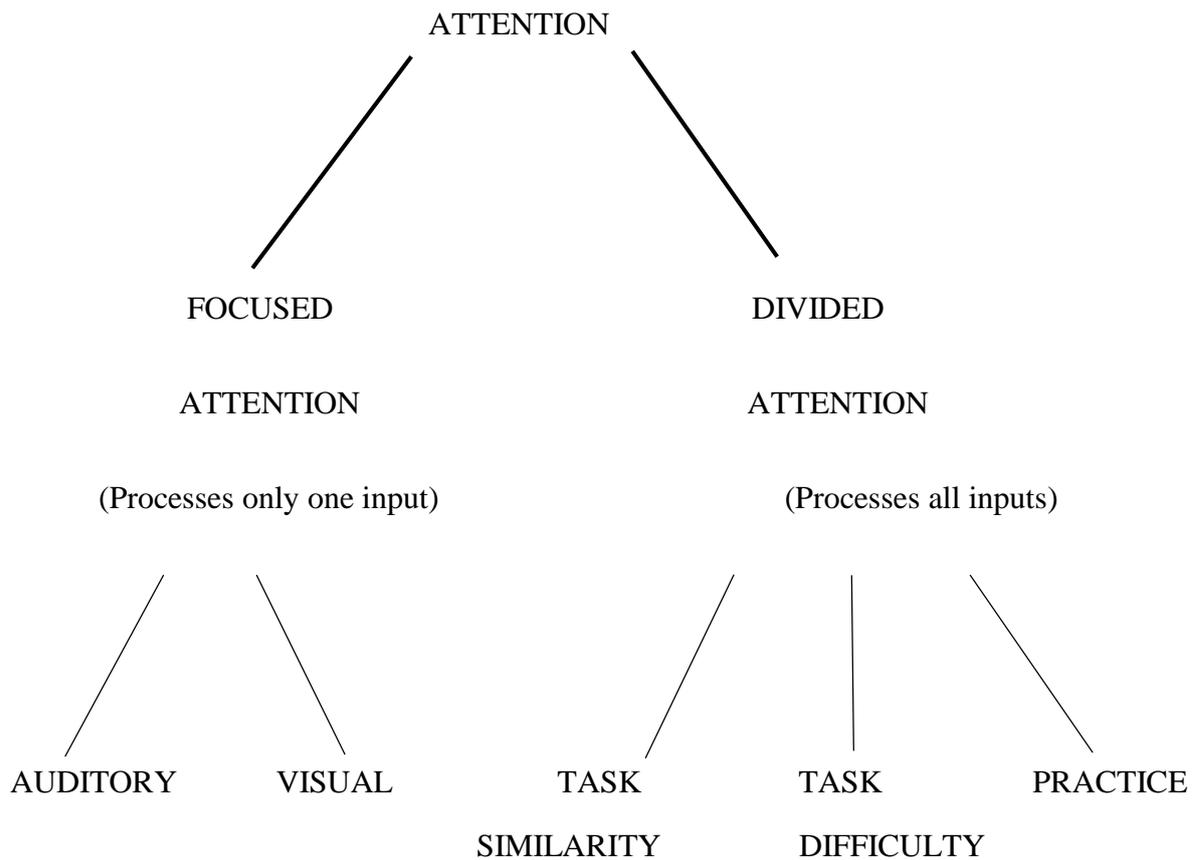


Figure 01: The relationship of topics in attention. (Levitin, 2002, p. 364).

#### 1.4. The Process of Information Selection

Attending to a particular part on a stimulus rather than others, is a part within consciousness. Through which the individual selects parts of the incoming data, which is selected by internal guided purposes, or being selected since it is strong as a stimulus.

##### 1.4.1. Consciousness and Attention

In his book *The Psychology of Second Language Acquisition*, Dörnyei (2009) explains consciousness and attention. Firstly, he defines consciousness as a term used differently in philosophy, psychology, neuroscience, and cognitive science. He says, “consciousness is a property or characteristic of the mind, associated with qualities such as subjectivity, self-awareness, emotions, and reflectiveness” (p. 133). Consciousness therefore, is the ability to be aware using senses and mental powers. Secondly, attention has been seen as the cognitive mechanism that controls access to consciousness. Dörnyei (2009) sees attention as the

spotlight on stage and only those in the bright spot are strictly conscious. It makes little sense to talk about directing one's attention as Dörnyei (2009) points out, "in an environment of multiple stimuli, we can direct the spotlight of our attention at specific things" (ibid, p. 133). Lawrence (2012) demonstrates an example of someone who is reading and at the same time, all of the surroundings as table, chair, and book are under consciousness. However, attention is only paid to the words being read. He therefore provides the difference between attention and consciousness; attention is part of the vast field of consciousness.

To recapitulate, it is due to attention that we can ignore things so that we can selectively concentrate on one.

#### **1.4.1.1. Selectivity of Attention**

Attention is the ability to control thought processes, to select one task to concentrate on. According to Thorne and Thomas (2009), attention is captured by a multitude of stimuli, at a moment. Yet, one is capable to attend to only one stimulus. They argue, "because it is impossible to attend to them all, we must decide which ones are the most important" (p. 2). Attending to one stimulus rather than others is in accordance to its relevance .i.e. the interest of one's present activities and goals. Eysenck, and Keane (n.d, as cited in Levitin, 2002) also considers the selectivity of processing as choosing to attend to some things rather than others.

Selectivity of attention is what limits our attention to be directed to one thing in a specific area. In other words, the selectivity of attention is choosing what is important to pay attention to, since it is impossible to attend to all of the incoming information. Thorne and Thomas (2009) provide an example, students in the classroom; can pay attention to what other students are doing, what is written on the board, or what their teacher is saying. The brain in this situation is able to choose what is relevant chronologically to concentrate on. Overall, selective attention is a conscious process.

Nevertheless, Turton (2014) sees selective attention as the lowest level of attention deficit. For him, the selective attention to some students with learning disabilities is used as a self-prevention. Unconsciously, they will stop trying since the information is not grasped.

However, he agrees that in a specific time selective attention neglects some items to concentrate on the most important one. He claims, “selective attention can be very useful in some circumstances. It allows for filters when people carry on conversations in loud settings; the conversation is heard and the background noise is ignored” (p. 1). Pashler (1994, in Kosslyn and Osherson, 1995) provides an example, when selecting an object to attend to its colour, any other information about it like the form, can be stored in short-term memory.

Selectivity of attention is used differently; one might select to attend to what is important among different things at a specific time and may select not to attend at the same time.

#### **1.4.1.2. Saliency Determination**

When a student selects to attend to what the teacher says he/she may take notes, which involves not writing every word the teacher is saying. Due to time consuming, students write down what is most important or salient to them. Saliency determination, therefore, is the individual’s ability to choose the main information on a specific task (Throne, & Thomas, 2009). They added, “if a stimulus is salient, it stands out among other stimuli” (ibid, p. 2). The noticeable information in a specific point is the salient to the student.

#### **1.4.2. Stimulus-driven factors and Goal-directed factors**

Anderson (2015) suggests two factors in selecting what to pay attention to and which information to process. These factors are Stimulus-driven, and Goal-directed. These factors are seen as the attentional systems of the brain.

Corbetta and Shulman (2002) identify stimulus-driven attention or exogenous control as a sensory orienting system, which is lateralized to the right hemisphere of the brain. This

framework is particular for the identification of behaviourally applicable stimuli, especially when they are salient or unexpected. The second factor is goal-directed attention or endogenous control. It is a cognitive orienting system, which is lateralized to the left hemisphere of the brain. Goal-directed attention is a system included in preparing and applying goal directed selection for stimulus and response. This framework is also modulated by the detection of stimuli and related to the individual (Corbetta, & Shulman, 2002).

Stimulus-driven attention and goal-directed attention are two systems in the brain, as factors that determine which information is to be attended. Moreover, they are the reason behind choosing that information. Whether choosing the information as a response for a stimuli, or directing one's attention to it, which is also known as attentional control. This later is the focus of our present dissertation.

## **1.5. Attention in Learning**

Many scholars classify attention as an important process in learning. Backer (1996, as cited in Suhair, 2004, p. 23), for instance, sees attention as a key factor in learning. This part of the research, therefore, is shedding light on the nature of learning, the relationship between learning and attention, and the importance of attention in learning.

### **1.5.1. Learning**

According to Salkind (2008), learning is defined in different ways. These ways can be divided into three main frameworks. These frameworks are the major points concluded from the vast studies that have been conducted through the past decades. In psychology, learning is dealt with in terms of observable behaviour. O'Donnell et al. (2012) define learning as “a relatively permanent change in knowledge or behaviour as a result of experience” (p. 7). Furthermore, Long et al. (2011) outline that learning “can be evidenced by changes in

strategy, or the ability to think differently about a problem” (p. 25). In general, behaviourists see learning as a matter of change in behaviour. The second framework, the cognitive revolution that is a reaction to the behavioural clarifications. It focuses on the human brain as the responsible of information processing activities. Information processing approach is mainly about storing information in memory for later use. Broadly, learning for them is a mental activity. The third framework was a reaction to the cognitive point of view that considers learning as an individual task. Their point of view is that learning is a social participation rather than an acquisition of knowledge (Salkind, 2008, p. 573-574). To conclude, learning is gaining knowledge being exposed to, or by experience.

### **1.5.2. Attention and Learning**

As any field, learning also requires a set of strategies used by a person to facilitate processing the information. Learners use these techniques to help them learn, and to make learning time more effective.

Attention is one of the used strategies that enable learners to comprehend and process the information. Processing an information requests considerable attentional effort. When not paying enough attention while learning, things we learn are usually forgotten and not learnt well (“Attention”, 2015). Learners’ attention is initial to select what to process, and to control what to concentrate their attention on. Attention and learning are different and dependent on one another at the same time. This was the sense emphasised by Turton (2014, p. 1)

Learning is the process of memorization, integration and application of new information and concepts. Attention is the process of prioritizing and applying information and concepts. The end dynamic of these two processes

involves distribution of energy, priorities, and decision making once information is absorbed

Attention is the first step in the learning process and one of the effective learning strategies as well. It is due to attention, students remember what they learnt.

### **1.5.3. The Impact of Attention on Learning**

Attention can be classified as a useful strategy that permutes learning, as it increases efficiency, and assists in remembering. Firstly, attention increases efficiency; when learners concentrate their attention on a topic, they are able not to waste their time or efforts as well. Attention also assists with remembering; in order for learners to recall or reuse what they learnt, focusing their attention can help to touch the details of the topic and to have a clear image about it. However, remembering an information cannot be possible or happen if the information is not grasped even though attention is successfully focused. In other words, attention decreases when learning an information is not occurring due to many obstacles. It is clear that attention has an impact on learning as it increases efficiency and assists in remembering (Prakash, 2012). Yet, some learners fail to understand, to absorb, and to process an information, which means that their attention is not working well. While others succeed.

Shedding light on the process of attention is involved in order to realise why some learners succeed and others fail.

### **1.6. Attention Process**

Paying attention is a task undertaken to process the massive amount of information one is exposed to. It involves both processing relevant information and mental efforts.

At the level of processing relevant information, it is the brain area of control, which involves three main steps. The first step is prioritizing different types of stimulus, which

controls how much attention is given to any piece of information. Besides, selecting what information is ignored or recognized. The second step is associating new pieces of information to prior knowledge. The brain connects the new data within the previous one. The third step is about the brain controlling one's attention to focus it on an important information for an appropriate amount of time (Kahneman, 1973).

Mental efforts are alertness and effective production. Alertness is being aware of what is going to happen. Thorne and Thomas (2009) claim, "Just the way our bodies need physical energy if we are going to run, our brains need mental energy if we are going to think" (p. 3). In order for the brain to control, there is a need of mental effort, and this mental effort is being alert and ready for the information. The second mental effort is effective production. It is a response to the information, which compromises organizing thoughts, and monitoring the work. This process of monitoring one's work enables students to revise their level of attention as necessary (ibid, 2009).

The result of compromising processing the information at the level of the brain and mental efforts is the process of how attention works. Attention is also determined by many factors.

### **1.6.1. Factors Affecting Attention**

Attention is also driven, or drawn by many factors. These factors are generally classified into two elements, external, and internal factors. External factors are called objective factors, which are related to the environment, like the nature of the stimuli that attracts the attention. The nature of the stimuli could be the size, repetition, and movement of a stimulus that is of a different nature than others. Whether the difference is in volume or strength, it could also be an unfamiliar object, repeated several times, and changeable in setting. These differences make it easy to notice and attend to one stimulus among many stimuli. Next, internal factors

or subjective factors are those concerned with the individual like the interest, and emotions. Interesting topics capture attention only when the individual is attracted in the idea of the topic. Emotions have a crucial role in facilitating attention. Other factors, desire, motives, aim or goal, habit, past experience, mental set, temperature, attitude, aptitude, and disposition. The external and internal factors are what affect and facilitate what is attended and what is not. However, learners fail in a certain point of time to pay attention at all and find it difficult to bring back their focus.

### **1.6.2. Reasons of Attention Failure**

In many classroom situations, students are fully paying attention and trying hard to focus on the lecture, when a sudden interference in attention appears. This interference breaks that attention, and students only notice that break when they are brought back to the lecture. This gap of attention or inattention phase is due to different factors. These factors are classified into two main distractions: internal and external distractions (Lawrence, 2012).

#### **1.6.2.1. Internal Distractions**

Distraction is what takes attention away from what a person is doing or thinking about (Phillips et al., 2010, p. 441). For the internal distractions, as Cooper (2014) named them, the inner dialogues and thoughts about what is happening in one's life. Internal factors are those emotional disturbances like boredom, anxiety, fatigue, and anger. It also includes feeling of insecurity, lack of motivation, and lack of interest. Emotional distractions are as effective as any other distractions of attention. If a person or a student has an emotional issue struggling in mind, this later is going to be busy to find a solution. These distractions may create a daydreaming distractor as well. Subsequently, students are absent minded during the lecture.

A major internal distraction is that within learning disabilities. Learners with such disabilities have a different way of perceiving, processing, and memorizing an information

from other learners. One of the important disabilities is that when a student is unable to understand and interpret what is heard from the part of the teacher during the lecture. This issue is diagnosed by a damage in the left hemisphere of the brain, and more specifically, Wernicke's area (figure 02). Wernicke's area is located in the temporal lobe of the brain, which is responsible for understanding language (Dörnyei, 2009). Any damage in this area makes the individual unable to understand what others are saying. In the case of learners, they are incapable of interpreting what the teacher is saying. The impairment in interpreting is caused by a damage in Wernicke's area is called Wernicke's aphasia. Wernicke's aphasia is a damage in comprehension ability of the individual (Yue, 2013).

Another internal distraction is in term of a mental disorder that affects a region of the brain system related to processes of learning. This disorder is called Attention Deficit Hyperactivity Disorder (ADHD). A neurobiological condition with an impairment on the levels of inattentive or hyperactive. Learners with ADHD are categorized by having learning disabilities (LDs), problems with their executive functions, and they process information more slowly than their classmates do. Attention Deficit Hyperactivity Disorder includes an impairment related to processes of the brain that is related to learning (Tannock, 2007).

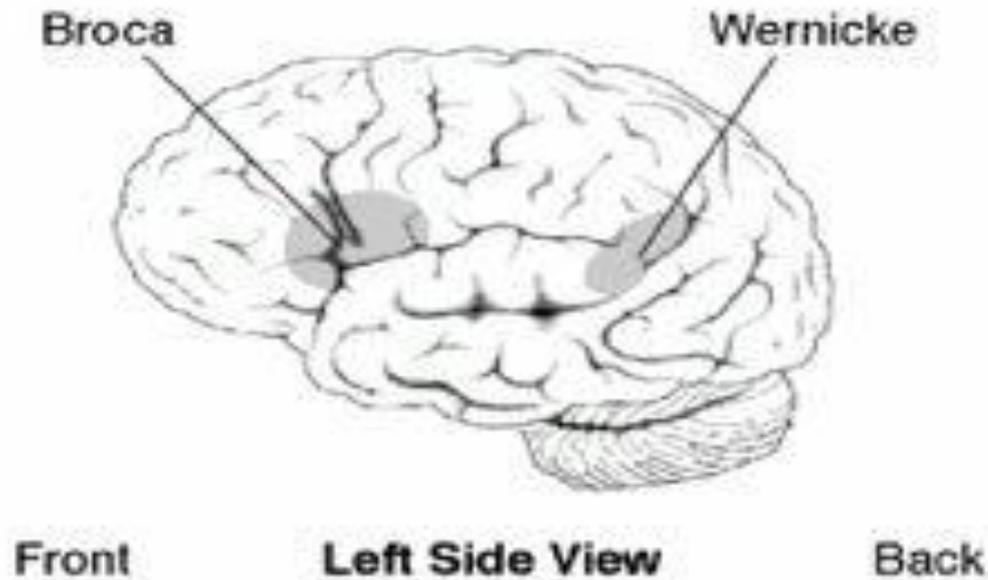


Figure 02: The Broca and the Wernicke areas in the left hemisphere of the brain. (Dörnyei, 2009, p. 36).

#### **1.6.2.2. External Distractions**

External factors or environmental factors are the things happening around the individual. It includes both visual and auditory distractions. Distraction in individuals' peripheral vision could be that of the classroom environment or any external stimuli.

Classroom learning environment is considered as an effective factor for learners' attention, whether physical or nonphysical elements. Ryan (2013) states that there are physical elements and integral elements and these later impact students' focus and achievement. The physical environment of the classroom is principally about the structure or the colour. It also includes overcrowded classrooms, unarranged and uncomfortable seats. The physical environment affects students' attention, as it is the first thing they see and make comments on.

The second important aspect in a classroom environment is the non-physical environment. It involves different aspects such as the aroma of food, background noise,

lighting, and temperature (ibid, p. 2-10). All these aspects, whether physical or non-physical, play a major role in students' attention. Negatively speaking, they are distractions that decrease students' focus. However, these elements can increase students' attention if they are well organized.

External stimuli could be any kind of interferences in attention that drives some students to no longer focus on the teacher's explanation. An external stimulus could be a strong sudden voice or noise; it could be a ringtone of a cell phone, or a student coming late to the lecture. These factors are considered as distractions that affect both teacher's process of lecturing, and students' attentional process.

Students' attention fail because of internal and external distractions. Internal distractions are whether of a mental set or emotional factors. However, external factors are within students' environment and external stimuli.

### **1.6.3. Attention Failure Consequences**

According to Kline (1996) when receiving an information and not paying attention to it, the information will not take place. In order for an information to be processed by the individual's mind, it needs to be attended first and then selected. Moreover, students need to ignore the different distractions so that they can attend to a single part of the information. However, in some situations, the attentional system does not function, and the learner witnesses a breakdown in attention. In this case, the brain fails to select information and therefore information processing is interrupted and not captivated. In other situations, students are able to select the information but unable to use it and learning does not occur.

The absence of attention means a breakdown in information processing which in return will lead to zero comprehension. Lack of attention is referred to as a state of inattention. Nevertheless, if the inattentive state is in a different situation, it could be seen as a positive

one. A typical example is presented by Lawrence (2012), a student wants to pay attention to his lesson, must overlook and divert attention from other things and surroundings. Inattention, therefore, is required for attention.

Lack of stimuli that help students to concentrate lead some of them to try their best not to lose their attention and try to guide it. This process of guiding one's attention and being able to control oneself attentional system is called "attentional control" (Corbetta, & Shulman, 2002).

### **1.7. Attentional Control (AC): Definition(s)**

Many scholar define attentional control as the ability to control attention, for example, Astle, and Scerif (2009) define it as the individual's ability to choose what to pay attention to and what to ignore. It is also known as endogenous attention that selects what to pay attention to and inhibits distractions or unrelated aspects. Attentional control is referred to the individual's goal-directed strategy that allows getting back to the flow after witnessing a break in attention (Corbetta, & Shulman, 2002).

Attentional control is a technique used to execute distractions whether external or internal so that attention is fully focused on the present time. Similarly, Smith and Kosslyn (2006) see endogenous attention as a form of goal driven aspect, in which the individual is able to choose what to pay attention to and what to ignore. Nevertheless, they see that endogenous attention as a process generates from the prior knowledge that the individual has, and any outside sudden strong stimulus can affect attention and drive it away. For Smith and Kosslyn (ibid) stimulus-driven is powerful than goal-directed since attention is drawn rapidly and automatically. This hypothesis is true so far, unless when the stimulus is considered as a distractor, here the individual's attention is driven away.

However, attentional control directs one's attention back to the intended point after being distracted. Eysenck et al. (2007) claim, "attentional control plays an important role in determining switching costs" (p. 346). The purpose of switching between tasks is to control attention and execute other distractions. Attentional control for Eysenck et al. (2007) is a resistance to distractions interference, which is recognized as inhibition. The inhibition function is diagnosed by shifting from one task to another or from a distractor to the intended point.

Students' attentional control is their ability to restraint external and internal influences, in order to concentrate during the lecture. This involves inhibiting distractions and shifting attention and guiding it to task related topic. To conclude, attentional control is the state in which the individual is capable of concentrating and directing attention, by eliminating, switching and inhibiting interferences of external and internal distractions on the intended task.

### **1.7.1. Attentional Control Theory**

Attentional Control Theory (ACT; *ibid*) hypothesizes that attentional processes are affected by anxiety that leads to an expanded impact of the stimulus-driven attentional system and a decrease in the goal-directed attentional system. In other words, attention is more driven by external distractions rather than internal ones when it is threatened (Wilson, 2008, p. 195). Eysenck et al. (2007) assume that attention is regulated by a goal-directed attentional system, which is governed by expectations, knowledge, and current goals. In addition to a stimulus-driven attentional system that is sensitive to salient stimuli. This theory suggests that the goal-directed attentional system is disturbed by anxiety. It increases the stimulus-driven attentional system, and decreases the goal-directed attentional system (Coombes et al., 2009). This theory included three main results. First, anxiety declines the ability to inhibit interferences. Second, it raises susceptibility to distractions. Third, anxiety

impairs shifting between tasks. Bringing up to the end, attentional control theory of Eysenck et al. (2007) is based on the assumption that anxiety affects attentional systems. When anxiety is increased attention is more likely to be focused on the distractions, according to them attention will be focused on “secondary tasks in dual-task situations” (p. 348).

### **1.7.2. Executive Functions of Attentional Control (EFs)**

Executive functions (EFs) are mental processes used to exclude different distractions when trying to pay attention to a specific topic. Diamond (2012) defines EFs. He says, “executive functions (EFs; also called executive control or cognitive control) refer to a family of top-down mental processes needed when you have to concentrate and pay attention” (Simons 2005, Espy 2004, Miller & Cohen 2001, cited in Diamond, 2012, p. 1). There are two main approaches to executive functions of attentional control proposed by Gruszka, et al. (2010). The two functions are Smith and Jonides’ approach, and Miyake et al. and Friedman and Miyake’s approach.

#### **1.7.2.1. Executive Functions of Attentional Control: Smith and Jonides (1999)**

A standout function of the central executive system functions is that of Smith and Jonides (1999). They provided five main executive functions of attentional control. However, this function is not established on an empirical evidence. This approach is based on five functions. Firstly, switching between tasks, switching one’s attention from a topic to another. Learners switch their attention to more relevant topics. The second function includes planning sub-tasks in order to reach some pre-determined goal; the learner here organizes his properties to achieve his goal. Third, selective attention function combined with inhibition, learners organize incoming data and exclude unrelated topics. The fourth function is updating and checking the information that is contained within working memory. In this function, learners recall their background knowledge and classify the new one. Fifth, this function is concerned with coding representations in working memory based on

information about when and where the stimuli are encountered (Eysenck, n.d, as cited in Gruszka et al. 2010, p. 197-198).

### **1.7.2.2. Executive Functions of Attentional Control: Miyake et al. (2000) and Friedman and Miyake (2004)**

On the other hand, an empirically based approach is presented by Miyake et al. (2000) and Friedman and Miyake (2004, as cited in Gruszka et al. 2010). Their approach is a latent variable analysis created from tasks that contain the central executive of attentional control. This approach is identified by three major functions, the inhibition function, the shifting function, and the updating function. The inhibition function for Miyake et al. (2000, *ibid*) is “one’s ability to deliberately inhibit dominant, automatic, or proponent responses when necessary” (p. 198). Firstly, the inhibition function is based on interference control, cognitive inhibition, behavioural inhibition, and automatic inhibition of attention. It prevents stimuli unrelated to a task. Secondly, their shifting function is used to allocate attention to the stimuli that are most relevant to the task. According to Miyake et al. (2000, as cited in Gruszka et al. 2010), the shifting function involves, “shifting back and forth between multiple tasks, operations, or mental sets” (p. 198). The Updating function is a function related to updating and monitoring an information in working memory. Miyake et al. (*ibid*), sees that the updating function contains the representations of the short-term memory, which hold focus during the shifting between tasks (Gruszka et al. 2010).

According to Gruszka et al. (*ibid*) these three functions are similar to those identified by Smith and Jonides (1999). Their third function, selective attention and inhibition is overlapped with the inhibition function, the shifting function resembles the Smith and Jonides’ first function, switching between tasks. Finally, the updating function is matched to the fourth function of Smith and Jonides, updating and checking function.

## **1.8. Learners Control Strategies**

In many overcrowded classrooms and without any assistance from the part of teachers, some students apply certain strategies to overcome the distractions. These strategies are considered as self-management skills that students use to execute environmental distractions or distracting emotional or physical needs. Dörnyei and Ushioda (2011) offers strategies for learners to promote self-motivation. He divided them into five main classes. The First class is commitment control strategies that assist in rising learners' goals, by picturing the fruitful results. The second provided strategy gives learners self-reminders to focus by reminding oneself of the deadlines, that involves monitoring data and ignoring unrelated tasks. This strategy is called metacognitive control strategies. Thirdly, the satiation control strategies involve making tasks more active and out of boredom. As a fourth class, emotion control strategies includes self-encouragement strategies to generate positive emotions. These positive emotions work as a barrier for negative emotions. The fifth class for Dörnyei is environmental control strategies, via this strategy, students are eliminating environmental distractions and making a good use of the positive environmental influences (Dörnyei & Ushioda, 2011, p. 124-125).

## **Conclusion**

Attention is a cognitive process that neglects parts within the surroundings to concentrate on one issue. These surroundings are considered as distractions that the attentional control functions execute, and filter out. Attentional control ignores irrelevant stimuli, and guides one's attention to a more relevant stimulus. The executive functions are strategies used to make learning task easier and more effective. For an effective learning, and a better listening comprehension, students are requested to pay close attention to the teacher's explanation of the lecture.

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## **Chapter Two: Students' Lecture Comprehension**

### **Introduction**

Lecturing is a practice of teaching used by teachers at the tertiary level in teaching Master's students of English. In order for students to understand the lecture, they are required to listen to the teachers' explanation, and read from the board or the handouts. This chapter deals with three main points; the first point is the nature of lecture and lecture comprehension as an umbrella for listening, visual, and reading comprehension. The second point sheds light on teachers' role in assisting their students and providing them with some tips for presenting the lecture. This chapter also addresses the issue of students' attention during lectures and provides them with some strategies for better comprehension.

### **2.1. Lecture: Definition(s)**

Lectures are one of the massive methods of teaching used to transmit information to the audience. According to McKeachie and Svinicki (2006, as cited in Cashin, 2010), the oldest and widely used method of teaching all over the universities is lecturing. In general, a lecture is organized by a lecturer, who provides the audience with information. As Bligh (1998) defines it, "more or less continuous expositions by a speaker who wants the audience to learn something" (p. 4). In university settings, the teacher transmits the information to the students in large classrooms or overcrowded ones as the case of Master one students of English at the level of Biskra University. Moreover, university lectures are different from any other lectures in many aspects. Academic lectures take more than one-hour span; it is from one hour and fifty minutes to one hour and thirty minutes a lecture. The number of lectures per day is different, but mostly it is from three to four lectures in one day. From the aforementioned definitions, a lecture can be defined as a method of teaching in universities,

in which a lecturer transmits knowledge in a large class to a considerable number of students, which need to understand what the teacher is saying for later use.

## 2.2. Lecture Characteristics

In academic settings, lectures are more formal through the enormous strategies used by teachers to submit information. Lecturers use different strategies in one lecture; they may read from their notes or handouts, and they can write on the board. Bligh (1998) suggests that there is no difference between lecturing and other methods in effectiveness (table 01). He sees lecturing as an effective method as any other method of teaching in transmitting information. Cashin (2010) also emphasises on lecturing as a useful method to convey knowledge. However, if it is compared to any other method of teaching as discussion, inquiry, and programmed learning, lecturing is not effective in the promoting of thoughts, changing attitude, and teaching behavioural skills (Bligh, 1998). He suggests, addressing lecturers, “use lectures to teach information. Do not rely on them to promote thought, change attitudes, or develop behavioural skills” (p. 20).

Teaching Method	Lectures less effective	No significant difference	Lectures most effective
Programmed learning and PSI related	20	17	8
Discussion (various)	18	54	22
Reading and identity study	10	21	9
Inquiry (e.g., projects)	6	6	3
Others (mostly audio, TV, computer-assisted learning)	27	57	20

**Table 01:** Comparing Lectures with Other Methods. (Bligh, 1998, p. 5).

N.B: - PSI (Personalized System of Instructions) is a method of teaching through instructions, developed by Keller (1960). It is also known as The Keller Plan.

- Numbers in the table below reflects experimental researches that were done to compare lecture effectiveness in transmitting information with other methods of teaching.

In the table above Bligh (1998) presents a number of experimental comparisons of lectures with other teaching methods. Those experiments study one main aspect, which is

the effectiveness of lectures on the acquisition of information. Results show that there is no significant difference, and lectures are as effective as other methods in teaching facts. Blades (2015), supports the conclusions of Bligh (1998), that lectures are less effective in the promotion of thought, and teaching behavioural skills. While, Gibbs (2013) hypothesises that lectures might be effective in teaching skills by involving, and engaging students using active-learning strategies, more efforts from students.

From the literature of lecturing as a method of teaching, it is summarized that the main object of the lecture is proving information. Teachers or lecturers in universities are providing their students with knowledge and facts while lecturing.

### **2.3. Paying Attention during Lectures**

Motivation, interest, and time of the day are factors leading students' attention during lectures. It is due to these factors that students pay attention in a lecture. If there is a breakdown in one of the factors, students will experience a breakdown in their attention too. Researches about students' attention span can be classified into two main views. Both views are based on the fact that students' lapses in attention are a matter of duration.

The first view concludes that students' attention during lectures increases from the beginning of the lecture and starts to decrease ten to fifteen minutes into the lecture. Benjamin (2002, cited in Wilson, & Korn, 2007), states, "when the lecture begins, most students are paying close attention... [and] for most students that attention lasts for about 10 minutes" (p. 85). The second view has the same estimate as the first view; however, researchers such as Lloyd (1968, as cited in Wilson, & Korn, 2007), assume that students' attention increases again from three to four minutes towards the end of the lecture. According to Lloyd (ibid), students' receptivity is "greatest in the first 5 min of a lecture begins to decline after 10 min, and increases again about 45 min into a 50-min lecture" (p. 86). Wilson

and Korn (2007) consider those two estimates or views concerning students' lapses in attention during lectures as views based on observations, and have no scientific evidence.

Students' lapses in attention occur differently in time and duration; they increase in the beginning and the end of the lecture, and decrease between them. Moreover, Rosegrant (2013) found that losing attention after ten minutes into a lecture is a wrong theory. He states, "I found that the first 15-minute adage is not necessarily true. Over the course of entire class students have the ability to stay on-task fairly consistently" (p. 1). Rosegrant's work in 2013 was to study students' attention in a lecture, using eye-trackers. His investigation is about students' attention in overcrowded classrooms. This kind of study gave a clear image of what students are looking at during a lecture; however, it did not provide a view concerning the time allocated for students to stay focused during lectures.

However, According to Briggs (2014) there was another study about students' lapses in attention in 2010, in which researchers like Bunce, Flens, and Neiles (cited in Szpunar, et al., 2013) ask students to report their lapses each time they notice one, by pressing a button of a clicker in their hands. This research has three main results. The first one is that lapses with one minute or less, are common than those with longer breaks. Those short breaks happen more regularly, and this is their second result. As for the third result, they found that students' lapses in attention occurred less in student-centred pedagogies; in which the focus is on students to increase their autonomy. Therefore, lecturers are requested to break up a lecture with periods of active learning, opening discussions and asking questions, to minimize the lapses of students' attention.

To sum up, theories about the duration of lapses in attention during lectures are different. Students spend more than one hour per a lecture in Algerian Universities in general, and in Biskra for particular. It is challenging, for students to stay focused in an overcrowded

classroom all the time. One hour and thirty minutes for a lecture make students witness frequent breaks of attention. However, there are some strategies teachers may use to prevent lapses of attention from occurring.

#### **2.4. Lecture Comprehension: Definition(s)**

Lecture comprehension is the reaction of students, to the lecturer's explanation of the subject. It also means that the teacher's transmission of knowledge is grasped by the learners (Gourari, & Ghedbane, 2012).

When learners decode what the teacher is saying, they facilitate it for later use. Students receive information from their lectures in which they monitor each point of the topic and update it according to their background knowledge. At this stage, both analysis and examination skills are required. Students need to organize their priorities during the lecture since many distractions are involved. Another strategy used by students to understand the content of the lecture is by asking questions. Students usually ask questions when they are uncertain of a specific information, and they sometimes ask their teachers for repetition when they fail to grasp a point. However, when the topic is interesting for students, comprehension for them is easier than other topics (Bingol, 2014).

In order for students to comprehend their lectures, they need a good listening skill, as it is the ability to decode spoken language (Mendelson, 1994, as cited in Gilakjani, & Ahmadi, 2011).

#### **2.5. Aspects of Lecture Comprehension**

Lecture comprehension involves a set of different skills, including listening and reading skills, which are significant to understand what the teacher is saying and what is written in the board or the handouts. Listening, reading and visual comprehension are aspects of lecture comprehension.

### **2.5.1. Listening: Definition(s)**

Definitions about listening can be categorized into two main views. A view defines listening as a communicative process, while the other sees it as a passive or active skill.

For the first view, listening is one of the major elements in communication. For example, Kline (1996) defines listening as “an integral part of the total communication process” (p. 15). Nadig (2010) also supports this claim, listening to him is a major point in communication. Dixon and O’Hara (n.d) wrote that effective listening is necessary for an effective communication, they state, “effective communication is heavily dependent on effective listening” (p. 10). Listening is essential for communication as it enables receivers to decode the incoming information. This process of decoding a message requires certain skills to facilitate the communication act.

The second view considers listening as a skill that allows hearers differentiate between different sounds and neglects unnecessary ones. Some scholars define listening as a passive skill, because listeners are only receptors. Cabezas (2015) defines listening, he says “a passive activity or skill because it is developed internally or, rather, it is a cognitive process that does not produce observable results” (p. 40). However, listening as a skill involves not only receiving, but also it requires attending and responding to the data coming. For instance, Shen et al. (2007, as cited in Gilakjani, & Ahmadi, 2011) state that “listening involves listening for thoughts, feelings, and intentions. Doing so requires active involvement, effort and practice” (p. 978).

Hence, Listening as an active skill involves attending to the information, understanding it, and then responding. This process of decoding the message by a listener to facilitate understanding a spoken discourse is often called listening comprehension (Richards, 2008).

### **2.5.1.1. Process of Listening**

According to Kline (1996), the process of listening is classified into two main groups of different steps (figure 03). The first group contains three steps; receiving, attending, and understanding. Receiving a message or an information for Kline does not occur only when there is a direct contact between sender and receiver. When receiving an information, listeners have to attend to it so that it makes sense for them, receiving a message without attending to it does not insure understanding it. Therefore, for understanding to happen both receiving and attending are necessary. The second group is based on responding and remembering. Responding for Kline (1996), is a sign of listeners' comprehension of what they heard i.e. when a listener produces verbal or non-verbal signs; whether 'yes', 'ok', or nodding as signs of understanding. The second step in the second group is remembering. If the process of listening is successfully applied by the listeners, it is easy for them to recall what they were exposed to for a later use.

In a nutshell, the process of listening has two major groups of stages, for Kline, the first group is essential and its steps are in sequence and interrelated. However, for the second group, he sees it as a secondary stage, which may or may not follow the first one. He used an argument that understanding fails when the listener receives something he/she was not waiting for. In this case remembering will fail as well (Kline, *ibid*, pp. 15-27).

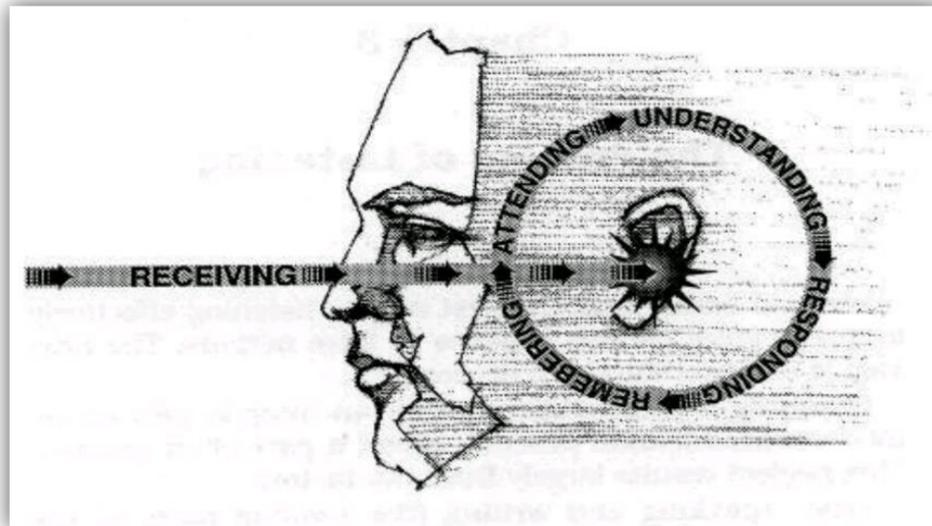


Figure 03: Stages of Listening (Kline, 1996, p. 16).

### 2.5.1.2. Listening Comprehension

As shown above, listening as an active skill is a process in which the listener receives information and decodes it. It involves extracting meaning from an auditory data. Literature defined listening comprehension as the process of listening to receive meaning.

Mendelsohn (1994, as cited in Gilakjani & Ahmadi, 2011) points out that, listening is a major skill in language learning, as it processes the linguistic forms to obtain the speakers' intention. Comprehension, therefore, involves not only understanding the meaning of words, but also their general meaning. According to Rost (2002, cited in Gilakjani, & Ahmadi, 2011), listening is a process of receiving spoken language, construct and represent its meaning. Thanajaro (2000) illustrates for a classroom situation, in which students carefully and attentively listen to teacher's explanation to understand and to retain the information for later use. He states, "In the classroom, students have to listen carefully and attentively to lectures and class discussions in order to understand and to retain the information for later recall" (p. 1).

Listening comprehension is the individual's ability to process what is heard according to previous knowledge. In short, listening comprehension is a process of obtaining meaning from spoken language. However, students do not only listen to what the teacher is saying to comprehend; they sometimes read what is written on the blackboard or handouts, and sometimes they need to see what is written in a data show screen to grasp it. In other cases, some students are incapable of realizing and understanding what they hear, unless they see it or write it down. For this purpose, both viewing and reading comprehension are involved in students' lecture comprehension.

### **2.5.2. Reading Comprehension**

Many scholars and researchers like Carroll (1985) and Dechant (1991, as cited in Mansouri, 2006), and McShare (2005, as cited in Arab, 2009) defined reading comprehension as students' awareness of what they read, and their ability to understand it. Carrol (1985, as cited in Mansouri, 2006) states, "reading is getting meaning from a printed or written message" (p. 13). Reading comprehension is student's ability to make sense of the written material they read.

Reading comprehension is also defined as the individual's ability to extract meaning from written materials. For students, it is their ability to understand what they are reading in a written piece, which in the end will provide them with information ("What is Reading", 2008). For instance, McNamara (2007) defines reading comprehension as a skill related to "meaning-based aspects of text processing" (p. 59). Generally, reading comprehension enables students to investigate the new data with their background knowledge while reading.

Overall, students' reading comprehension is achieved when they monitor what they read, and when they are able to obtain meaning from texts or a written piece of information.

### **2.5.2.1. Reading Disabilities**

Reading comprehension difficulties are based on two main reasons, the lexical processes limitations, and the limited capacity of working memory or short-term memory. Some Students find reading comprehension as a difficult task because of some reading disabilities. Reading disabilities are a deficit in obtaining meaning as a phonological processing, like the sentence structure, conveying meaning through sentences is a major deficit (“Learning Disabilities”, 2001). For instance, Arab (2009) represents the phonological processing deficit as the lexical processing limitation, which reflects the failure in extracting words’ meaning. She considers it as the reader’s inability to understand implied information or to make inferences. According to Arab (ibid), the limited capacity of the working memory is also considered one of the main difficulties in reading comprehension, since it leads to a limited capacity of decoding words.

### **2.5.3. Visual Comprehension**

Visual information involves visual processing skill to decode it and understand it. Decoding visual stimulus includes organizing it into meaningful patterns. One of the main skills in visual processing is the discrimination of the surroundings by separating them from the specific area of the stimulus (“Learning Disabilities”, 2001). The specific area could be the teacher, an information written on the board, or any other tool of teaching, and the surroundings are the external distractions like the student’s classmate making noise, or a strong light as a reflection from the window. The student is expected to discriminate the strong light and his/her classmate and focus on the teacher. Some students find the visual aspect more important for lecture comprehension. Overall, viewing comprehension may simplify the information and make it easier to understand compared to other categories of learning such as reading (Caspi, Gorsky, & Privman, 2005).

## **2.6. Developing Students' Comprehension during Lectures**

Bingol (2014) suggests three listening strategies to develop students' listening comprehension. Cognitive, metacognitive, and socio-affective strategies. According to Bingol (ibid), cognitive strategy includes repeating to memorize, summarizing, and collecting details of the topic together. Learners use those activities to deal with learning tasks. For instance, cognitive strategies are related to problem-solving technique. Metacognitive strategy includes tasks like self-monitoring, selective attention, and planning. Learners use these tasks to get their attention back after they lose it. Finally, socio-affective strategy allows students to reduce anxiety, increase personal motivation, and feel confident by interacting with the teacher and classmates. When students witness a gap in attention, which therefore causes losing a point or two from the lecture, the learner, therefore, is capable of asking his or her classmates or even the teacher (Bingol, 2014).

Furthermore, Wilson and Corn (2007) hypothesised that the close way to strengthen students' attention during lectures is by emphasising the teachers' role in motivating their students to concentrate, and making use of the previous findings of the literature concerning students' attention during lectures. As well as from the part of students, by motivating themselves, and using varied techniques to focus during the lecture as it increases their comprehension.

## **2.7. Teachers' Role in Increasing Students' Lecture Comprehension**

Scholars and instructors spent a great deal of time to find the appropriate ways to prevent students loss of attention, and their concentration deficiency. All researches in this area of interest address one main point, which is the role of the teachers in sustaining students' attention, and their comprehension. In this part of the research, the teachers' role in motivating their students to focus during the lectures to improve their comprehension is the

focal concern. Besides, providing them with some strategies to be used while lecturing to increase student's comprehension is of a great importance.

### **2.7.1. Motivating Students**

Bligh (1998) considers motivation as an important factor affecting students' learning in lectures, especially in student's attention during the lecture itself. He also sees it as a lecturers' consideration. Lecturers are capable of leading their students to superior comprehension and learning by showing interest. Enthusiastic lecturers are measured by their movement, eye contact, and varied voice intonation. They are considered as a key element in obtaining students' attention particularly students with low attentional control, who request feedback and external stimulus. For instance, Elizabeth and Fowler (2000, as cited in Suhair, 2004) enthusiastic teachers are capable of increasing students' goal-orientation by allowing them to make decisions themselves and assist them in comprehension. Teachers can also assist in this point by making the curriculum more relevant to their students' needs. By applying those two accommodations, teachers will help increase students' self-confidence, and encourage them to positive self-evaluation (Russell, 1997, as cited in Suhair, 2004). Students therefore are more interested and motivated since they have a major part and role in the lecture.

### **2.7.2. Short Break Effect**

University lectures are long in time, they occupy more than one hour with very few breaks. Research studies recommend a short break of thirty seconds or more as it provides students beneficial results for their attention.

Bligh (1998) proposes that a short break is an effective solution to reinforce students' attention i.e. attention will increase after the break. As a support, he includes both Mackworth (1950) and Adam's (1955) works as relevant experiments. Mackworth (1950)

found that attention returns nearly to its starting level after a short rest period. Along with Adam (1955), he found attention improvement right after a brief rest, or change in task. It is clear that a rest or a change can improve students' attention; if these findings are applied in teaching, students' comprehension during lectures will improve (Bligh, 1998). Middendorf and Kalish (1996) also confirm that a break has an effective improvement in students' attention span. They found active engagement for two to five minutes between students during a lecture, as an element of re-energizing (Middendorf, & Kalish, 1996).

However, even after a break or a short rest, some learners might appear not involved in a current task, whether because of deficiency in task comprehension, motivation deficiency, or some external factors as the background noise. Therefore, teachers are required to vary their techniques in student's activities to sustain their attention. Bligh (1998) states, "lectures should not be longer than 20-30 minutes- at least without techniques to vary stimulation" (p. 61). He refers to the change of techniques during the lecture, as the teacher's awareness of students' tiredness, or task learning difficulty. Johnstone and Percival (1976, as cited in Middendorf, & Kalish, 1996) also support the suggestion that teachers are effective in improving students' attention by changing tasks and techniques during one lecture when required. They suggest breaks, problem solving tasks, and illustrations.

Finally, a break during a lecture can be a short rest, or a change in task. All these changes are set to increase students' attention after they are realized, and hence, a noticeable increase in students' lecture comprehension occurs.

### **2.7.3. Change-up Lecture**

Middendorf and Kalish (ibid) provide a change-up in lecturing tasks as a strategy that allows teachers to assist students' with their low attentional control. They summarise those

strategies into four main areas; student generates questions, problem solving, generating ideas, and teaching tools.

#### **2.7.3.1. Student Generates Questions**

It is seen as the simplest technique, which involves several tips. Principally, asking students to write their questions instead of asking them orally in deferent types, simple questions, press conference questions, or exams questions. While answers to these questions are discussed in groups or individually. This practice offers students the ability to deliver their questions, generate their ideas, and discuss their answer.

#### **2.7.3.2. Problem Solving**

It involves a question of an analysis nature. Students are asked to write their answers in small papers and exchange with their partners and discuss their answers, which will lead to analysis of the current issue.

#### **2.7.3.3. Generating Ideas**

This technique contains brainstorming to assist them recall their background knowledge about a certain topic. Using different kinds of brainstorming strategies assists students to overcome anxiety.

#### **2.7.3.4. Controversial Topics**

This technique is established to reinforce students debating skills; by arguing their points of view. It is devoted to promote students' self-evaluation, by asking them to answer several questions concerning the process of the task they deal with.

#### **2.7.3.5. Vary Media**

Lecturers are required to vary teaching tools by using pictures, overheads, and video clips. The main purpose of this task is to discuss and evaluate the topic. Teachers here use different strategies by asking questions in different stages before, during, and after the task.

To sum up, a change-up lecture is a strategy that can be used to increase students' comprehension of the lecture through the different types of questions. Henceforth, this strategy can also promote student's attention through engaging them in the task. It is expected that some teachers may face a difficulty in applying one of the change-up tips, due to time constraints and the large number of students in the classroom. Therefore, another strategy that might assist teachers to gain their students' attention, and improve their comprehension as well, is hereby proposed.

#### **2.7.4. Interaction-Based Method**

Redish (2003) suggests that instructors of traditional lectures are capable of carrying out some improvements by engaging their students through different kinds of interactions. He suggests three models, peer interaction, interactive lecture demonstrations, and just in time teaching. Peer instruction model is based on the idea of breaks during a lecture; these breaks are for questions, in which answers are discussed later with a classmate. Interactive lecture demonstrations are based on evaluation; answers of teachers' questions are delivered in a paper, this model increases attendance, and provides feedback for teachers. Just in time teaching or (JiTT) model is based on providing students with questions of analysis, and problem-solving skills. Those models aim to improve traditional lectures achievement and assist students to focus and comprehend during the lecture. (Redish, 2003, pp. 133-141).

#### **2.7.5. Tackling Large Classrooms**

Teachers and instructors find controlling overcrowded classrooms a challenging task. It involves two main skills: classroom management and careful lesson plan. Classroom management is considered as a major point in organizing large classrooms. The most significant element in classroom management is involving students to collaborate, whether in groups or in pairs to make learning task easier. The second point is the appropriate and

Careful planning, which helps in organizing and distributing time to each point. It also contributes in defining the method of teaching. In this stage of planning lessons, teachers request a warming up activity or a lead in task as it motivates students and makes them interested in the content rather than being surprised of what the subject might be. Finally, both classroom management and careful lesson plan make students active during the lecture, and teachers enthusiastic to provide assistance (“Teaching English”, 2014).

#### **2.7.5.1. Large Classrooms as an Advantage**

A large classroom sometimes has benefits for both teachers and students. Working in large classes can provide advantages; makes teachers job easier, and lets students more active. For instance, working in groups makes students assist each other to progress by correcting each other’s mistakes. Large classes also facilitate tasks of debating and discussions; different views which result in action atmosphere and creativity among students. Finally, large classrooms facilitate the teacher’s job of correcting mistakes and explaining some points of the lesson to a large number of students at once because students assist each other to improve.

#### **2.7.5.2. Learners’ Differences**

Large classrooms contain large number of students with different background and different level of learning styles. Harmer (2007), advises teachers to vary their pedagogical tools to increase students learning and address all the different students in the classroom. One of the main techniques that teachers can apply while teaching various learning styles is the instructional method of teaching, which contains numerous strategies (Sriwahyuni, 2015, & “Merlot Pedagogy”, 2016).

The first strategy is active learning, which is against the strategy of listening passively to the lecturer. Students are involved in the lecture through class discussions, written

exercises, reporting findings of certain topics, and learning by teaching (“Merlot Pedagogy”, 2016). Sriwahyuni (2016) refers to this strategy by the term individual learning or indirect instructions, which involves collaborative learning between students and discussion strategies. The second strategy is problem-based learning (PBL), which involves peer groups working to find solutions for problems related to real world situations. Applying these strategies and the previously mentioned once, like change-up lecture, motivating students and interaction based-method may address the different learning styles of students during lectures, maintain their attention and facilitate their comprehension.

#### **2.7.6. Other Notes for Teachers**

Bligh (1998) states, “attention declines in the middle of lectures and the lecturers cannot be sure how well they have been understood, it is sometimes suggested that the density of information should be less at that time” (p. 206). He, therefore, advises teachers to reduce the density of data at that time. Teachers are required also to engage their students more often during the lecture, by asking them questions about what was explained (Redish, 2003).

Suhair (2004) ensures that teachers are capable of reducing distractions, and improving students’ attention. He, therefore, presents some tips provided by Sha’alan (1994) to increase attention, like varying teaching methods, collaborate with other colleagues, and increasing the sense of competitions between their students. He also suggests relating new data with what students have, and avoid material distractions by well preparation of the material before teaching.

#### **2.8. Learners’ Strategies in Increasing their Lecture Comprehension**

In some classroom settings, teachers are less interested in students’ attention and they sometimes fail to diagnose whether their students are paying attention, and understood the lecture or not. For this purpose, some learners use different strategies motivating themselves

to pay attention and control their attention despite the distractions, to lead them to a better lecture comprehension.

### **2.8.1. Note Taking during Lectures**

Note taking is a process of selecting and paraphrasing what the students hear and understand during the lectures. It is supposed that note taking aids student's lecture comprehension during lectures because it maintains their attention, aids memory and revision, and permits them to organize and select the important points.

Bligh (1998) assumes that note taking increases encoding by selecting and summarizing .i.e. when students take notes, they seek for the meaning of what they heard to rewrite it. Paying attention, selecting what is more relevant to be noted, and repetition of what is said are all factors aiding memory.

Taking notes assists students both during and after the lecture. For Bligh (1998) taking notes helps students to “grasp the overall structure of the lecture and fill in gaps where their attention lapses” (p. 206). Taking notes helps students to focus on important information and filter out external ones.

### **2.8.2. Dealing with Common External and Internal Distractions**

According to Sellers, Dohcen, and Hodges (2015), there are some strategies students can use to neglect some external and internal distractions. Firstly, dealing with internal distractions is better overcome with recalling background knowledge, or previous information. Secondly, taking a break of less than thirty seconds is also required to abandon internal factors. Thirdly, students should make the time allocated to an in-task activity more than the time spent in an out-task activity. As a final suggestion, students are advised to rest well during the night so that they can make it through the lectures. Ellis (2009) also suggests some remarkable advices for the students. He advises students to release their judgemental

attitudes towards the lecture, and focus more on the content and relate it to their goals. He also advises students to be active during lectures by asking questions and engage themselves in the discussions during the lecture.

Moreover, some strategies to deal with external distractions are also provided. Sellers, Dohcen, and Hodges (2015) recommend students to choose the appropriate place in classroom where it is easy for them to pay attention. They also suggest dressing appropriately and in accordance with the weather since it makes students less uncomfortable with temperature. Their final point was concerning electronics. Since there is a need for students to check their phones, it is better for them not to check them during the time allocated for studying; however, they can check them during the breaks. According to Ellis (2009), external factors are more easier to deal with, since the individual may know what to do with it. Finally, in order for students to improve their concentration during lectures, it is important for them to address both external and internal matters.

### **Conclusion**

Lecturing is an old method of teaching and the most used one in universities. The main objective of a lecture is providing facts and knowledge. The lecturer can use multiple strategies to present information and change tasks during lectures to control the large number of students, to promote their attention, and to facilitate their comprehension. However, some students are self-reminders; they use some strategies to motivate themselves, focus during the lecture and attempt to comprehend what the main points of the lecture are.

## **Chapter Three**

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## **Chapter Three**

### **Data Analysis and Discussion of Results**

#### **Introduction**

The principle focus of the present study is to investigate the role of attentional control in rising students' lecture comprehension. To do so, a set of data gathering tools were used to investigate the nature of students' attention and lectures comprehension, besides teachers role in enhancing attention and comprehension.

This chapter is concerned with research instruments, data collection and analysis. It is based on a descriptive method used to describe findings of students' attention and their lecture comprehension from the questionnaire for both students and teachers, and an interview with a psychiatrist in order to confirm or reject the stated hypothesis, and to answer the research questions.

#### **3.1. Questionnaire for Teachers**

The present section is devoted for describing the questionnaire and the aims of each section, besides of the analysis of the results obtained from it.

##### **3.1.1. Description of the Questionnaire**

In this study, we have selected the questionnaire for teachers as a tool of data collection that aims to investigate the role of attentional control in rising EFL Students' lecture comprehension. This questionnaire was given to a sample of seven lecturers of different modules. All the selected lecturers are teaching Master one students of English, Biskra University. It aims to gather information about teachers' opinion concerning students' attention during lectures, the techniques and teaching tools that they use to maintain students' attention and increase their comprehension. This questionnaire, therefore, contains thirteen questions divided into three main sections. The first section is entitled personal information; it contains three questions, which aim to obtain information about teachers'

gender, their experience and the different modules they are teaching. This section aims at investigating whether teachers' gender and experience have an effect on students' attention or not. The second section is entitled students' attention and lecture comprehension; it contains six questions that aim to gather teachers' points of views concerning aspects of lecture comprehension, and characteristics of attentive and inattentive students. This section targets students' behaviour during lectures from the part of teachers as observers. The third section is entitled teachers' methods of teaching; it contains three questions, which investigate teachers' techniques and aids of teaching, their opinion on warming up strategy and students' attentional control. The purpose of this section is to recognise teachers' strategies in rising students' lecture comprehension.

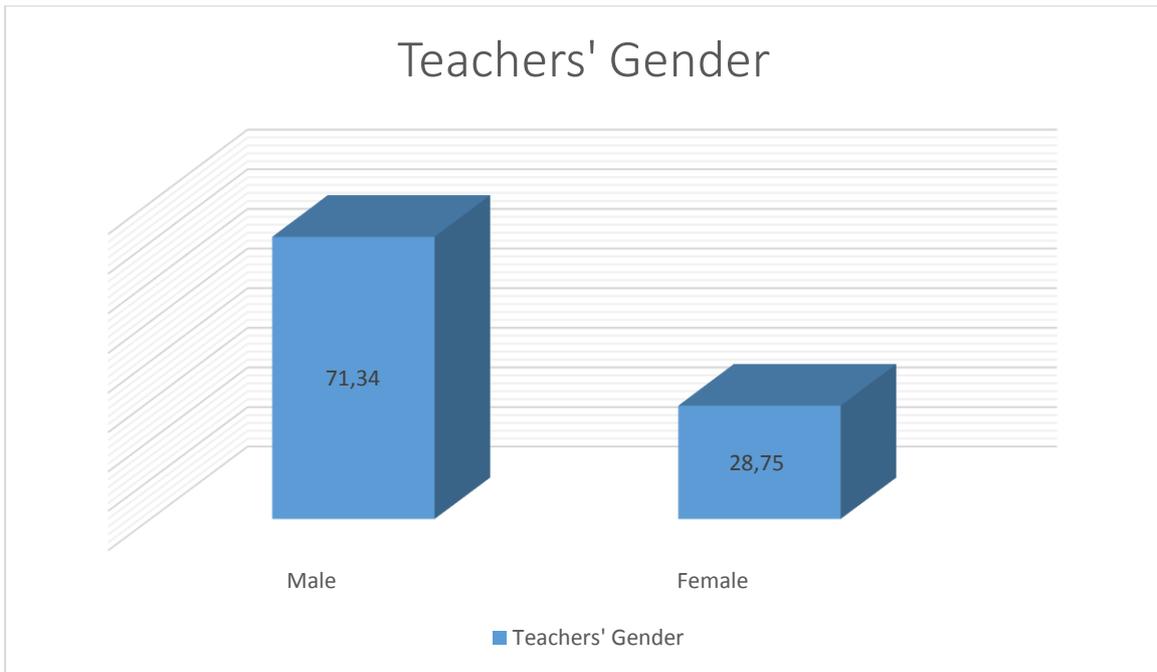
### 3.1.2. Analysis of the Results

#### Section One: Personal Information

##### Item One: Gender

Gender	Number	Percentage %
a- Female	2	28.57 %
b- Male	5	71.34 %
Total	7	100 %

**Table 02: Teacher's Gender Distribution**



**Figure 04: Teachers' Gender**

From table 02 and figure 04, it is noticed that the number of male teachers is more than the female ones. Results show that 5 participants who represent 70% are male teachers, and 2 participants who represent 30% are female teachers. This question aims to investigate whether the difference in teacher's sex would affect students' attention during lectures.

**Item Two:** For how many years have you been teaching at the university?

Teacher(s)	Years
Teacher 1	15
Teacher 2	34
Teacher 3	25
Teacher 4	37
Teacher 5	13
Teacher 6	10
Teacher 7	6

**Table 03: Teachers' Experience**

Findings in table 03 show that two teachers have from one to ten years teaching experience, while one teacher has an experience of thirteen years. While another teacher has twenty-five years teaching experience. However, on a scale from thirty to forty years teaching experience two teachers are involved. Teaching experience may improve teachers' teaching skills and the way they deal with students' certain behaviours.

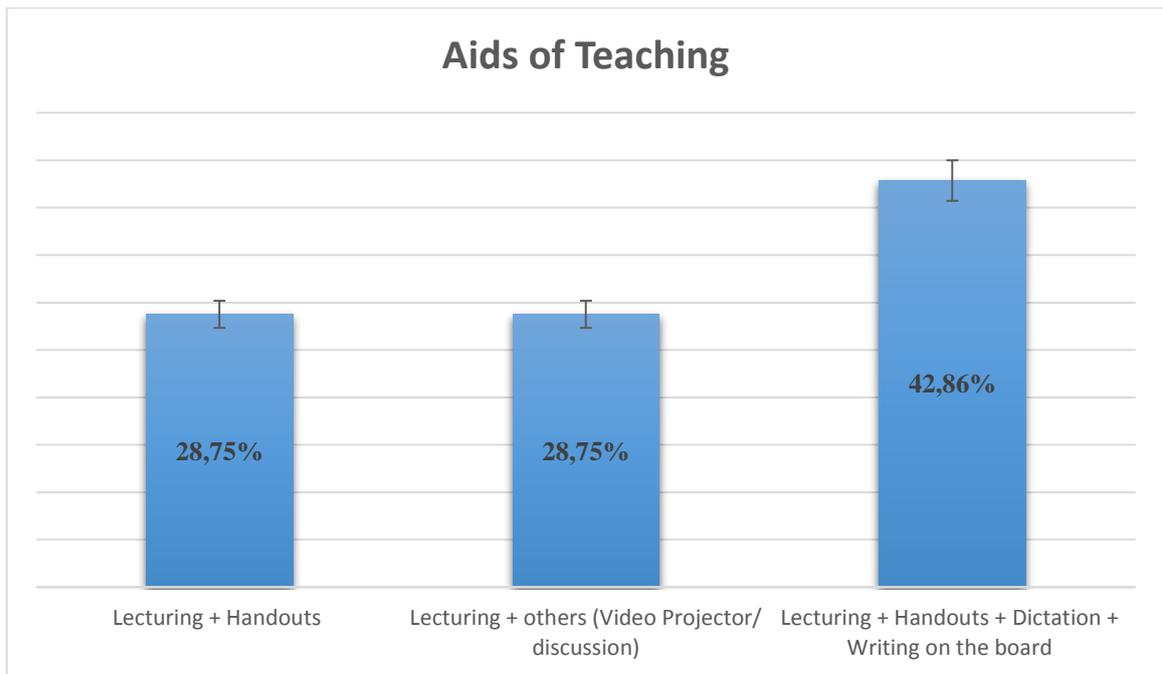
**Item Three:** Which modules do you teach Master one English Students?

This question was asked to see the different modules teachers are currently teaching Master one students of English, University of Biskra. From the teachers' answers, it is concluded that they are teaching different modules. For some teachers there is one module to teach, like Pragmatics, and Research Methodology, however, three participants are teaching two modules a week like Didactics and Written Expression, Applied Linguistics and Discourse Analysis, Language Acquisition Process and Psycho-Pedagogy.

**Item Four:** How do you explain your course?

	Number of teachers	Percentage %
Lecturing + Handouts	2	28.57 %
Lecturing + others (Video Projector/ discussion)	2	28.57 %
Lecturing + Handouts + Dictation + Writing on the board	3	42.86 %
Total	7	100 %

**Table 04: Teachers' Teaching Aids**



**Figure 05: Teachers' Aids of Teaching**

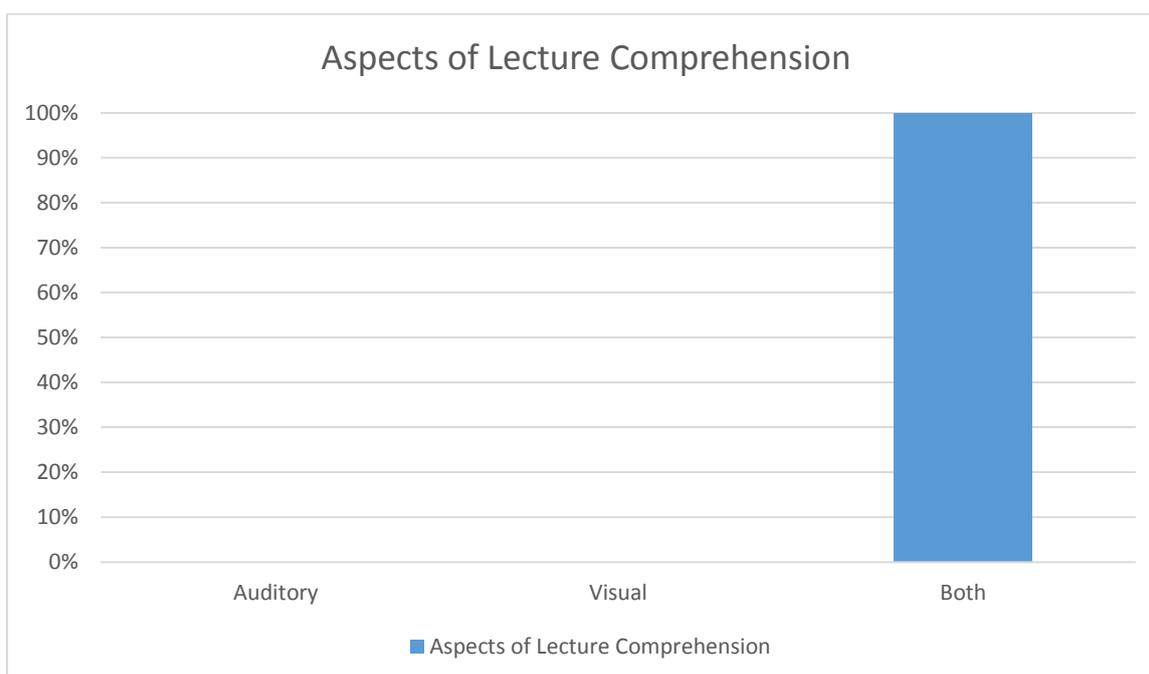
Results in table 04 and figure 05 show that teachers use different aids in teaching. For example, 2 teachers (28.75%) use lecturing, handouts, dictation, and writing on the board, while 2 others use only two aids, lecturing and handouts. However, 3 teachers who represent 42.86% use lecturing and other aids like data show or video projector, and discussions. Using different aids in teaching might maintain students' attention and rise their lecture comprehension because different aids maintain different aspects in lectures, and the different types of students; handouts and writing on the board hold students' attention and increase their reading comprehension, while video projects and discussions may increase students' visual and listening comprehension.

## **Section Two: Student's Attention and Lecture Comprehension**

**Item Five:** Which aspect is more important in lecture comprehension?

	Number	Percentage %
Auditory	0	0 %
Visual	0	0 %
Both	7	100 %
Total	7	100 %

**Table 05: Aspects of Lecture Comprehension**



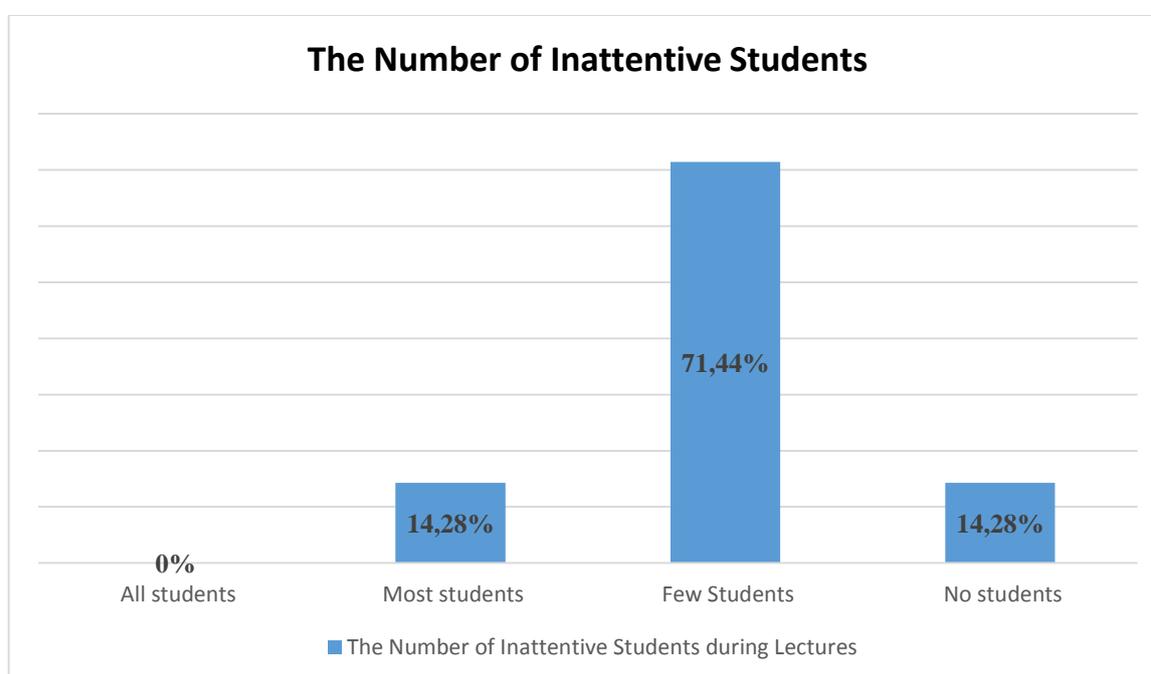
**Figure 06: Aspects of Lecture Comprehension**

When asked to select which aspect is important in lecture comprehension, all teachers answered that both visual and auditory aspects are important for lecture comprehension. This finding emphasises that students have to improve their listening and viewing comprehension and use them both during lectures, since each aspect is used in a different situation and sometimes at the same situation. Listening aspect is useful in understanding what the teacher is saying, while other students rely on the visual aspect to understand what is said.

**Item Six:** How many students are not paying attention at any moment in a lecture do you usually notice?

	Number	Percentage %
All students	0	0 %
Most students	1	14.28 %
Few students	5	71.44 %
No students	1	14.28 %
Total	7	100 %

**Table 06: The Number of Inattentive Students during Lectures**



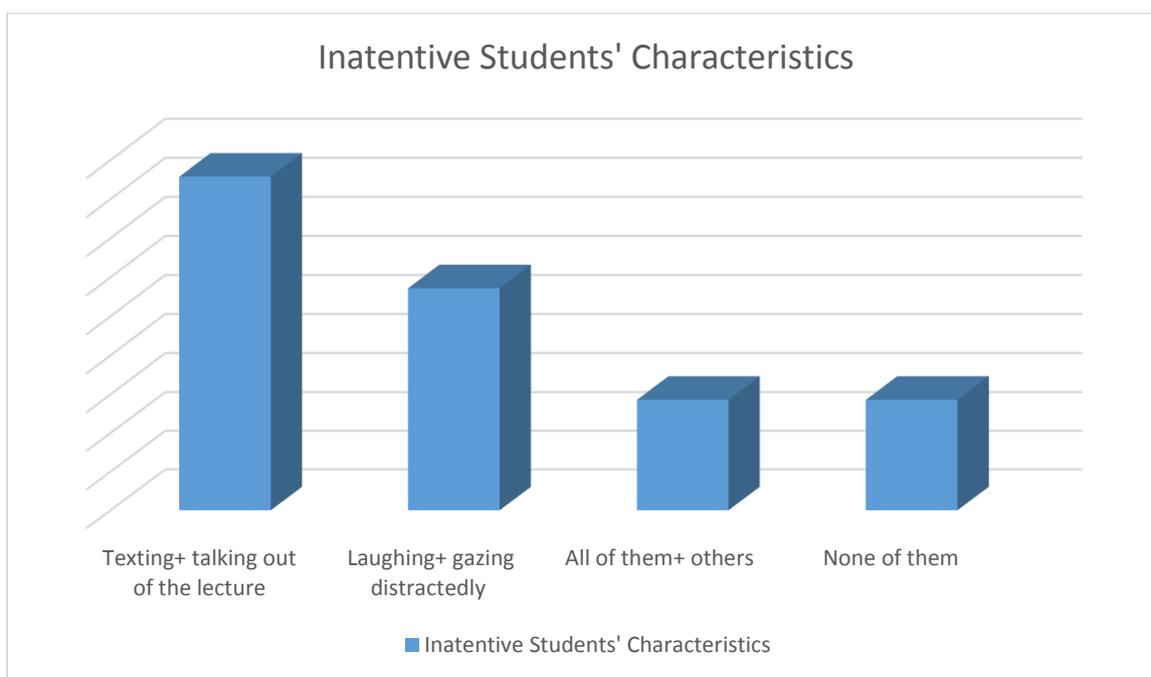
**Figure 07: The Number of Inattentive Students during Lectures**

According to table 06 and figure 07, one teacher represents 14.28% notices that most students are not paying attentions during a lecture, and 5 teachers who represent 71.44% of the participants see few students who are inattentive; however, one teacher who represents 14.28% declares that all students are paying attention, while none of the teachers choose all students not paying attention. These differences in teachers' responses are due to different factors, like teachers' strategies to hold their attention, as well as timing of the lecture.

**Item Seven:** What are the characteristics that inattentive students have?

Option	Number	Percentage %
Texting + talking out of the lecture	3	42.86 %
Laughing + gazing distractedly at some point of the classroom	2	28.58 %
All of them + others (humming, playing with their pens)	1	14.29 %
None of them	1	14.29 %
Total	7	100 %

**Table 07: Inattentive Students' Characteristics**



**Figure 08: Inattentive Students' Characteristics**

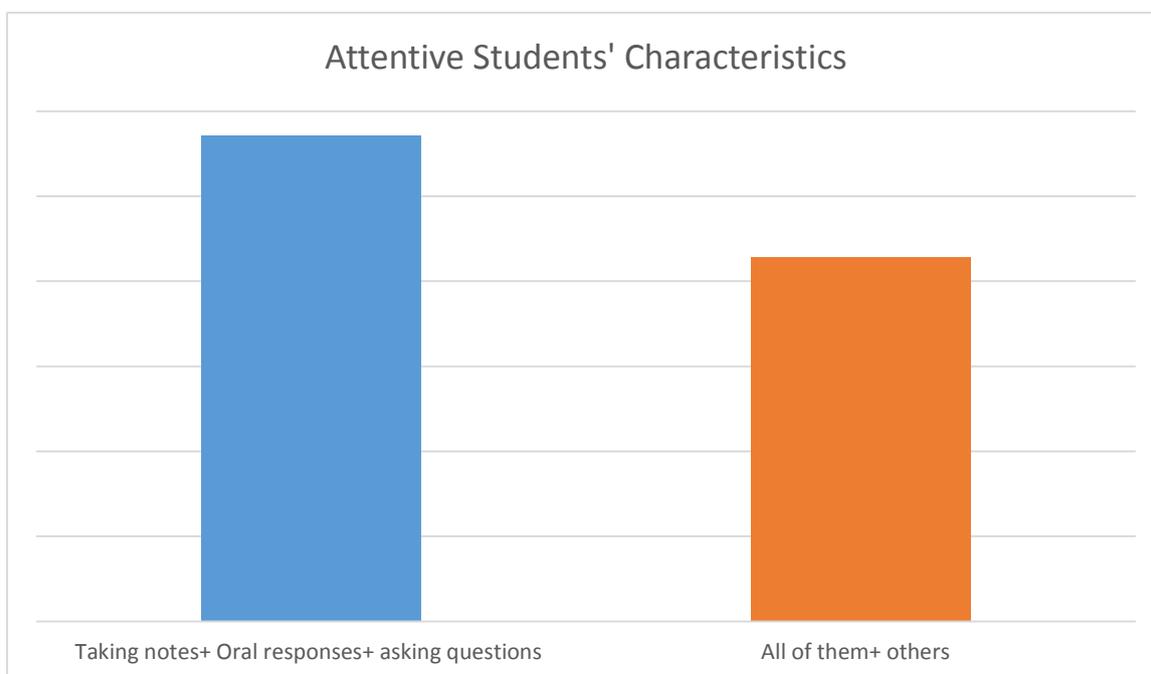
Concerning the characteristics of inattentive students, 3 teachers who represent 42.86% chose texting and talking out of the lecture. While 2 teachers represent 28.58% showed that laughing and gazing distractedly at some point of the classroom are the main characteristics of inattentive students, and one teacher chose all the mentioned characteristics and added, humming, playing with their pens or hair. However, one teacher considered their students

respectful and that they show none of those characteristics. These characteristics represent inattentive students' behaviour during lectures observed by their lecturers.

**Item Eight:** What are the characteristics of attentive students?

Options	Number	Percentage %
Taking notes + oral responses + asking questions	3	42.86 %
All + others ( alert, and active )	4	57.14 %
Total	7	100 %

**Table 08: Attentive Students' Characteristics**



**Figure 09: Attentive Students' Characteristics**

Table 08 and figure 09 indicate that 43 teachers who represent 42.86% assert that attentive students are those students who take notes, produce oral responses, and ask questions. While 4 teachers who represent 57.14% claim that attentive students are not those who take notes only, but they also ask for extra work (homework), and they are always alert and active. All teachers agree that attentive students are those who take notes, ask questions,

and produce oral responses, however, some teachers add other characteristics like asking for extra homework.

**Item Nine:** How long can a student concentrate on task during lectures?

Option	Number of teachers	Percentage %
Students' style of learning	3	42.85%
One hour	2	28.57%
20 to 25 minutes into a lecture	2	28.57%
Total	7	100%

**Table 09: Teachers' Views of Students' Time on Task during Lectures**

Teachers' points of view obtained from their responses of question nine in table 09 show that 3 teachers believe that students can concentrate on a task according to their style of learning. Two teachers believe that students can concentrate one hour on task during a lecture. While 2 others assume that students can concentrate 20 to 25 minutes into the lecture. These findings show that teachers have different views and students are different in concentration due to many factors like, motivation, teachers' methods of teaching, and interest in the topic.

**Item Ten:** What do students focus on during a lecture?

In this question, we found that students focus on different things during a lecture. For example, four teachers believe that students focus on the teacher during the lecture, two teachers of say that students focus on visual notes whether these notes are written on the board or shown in a screen. While one teacher believes that students can focus on the teacher and sometimes the handouts or notes written on the board, and that is due to the different

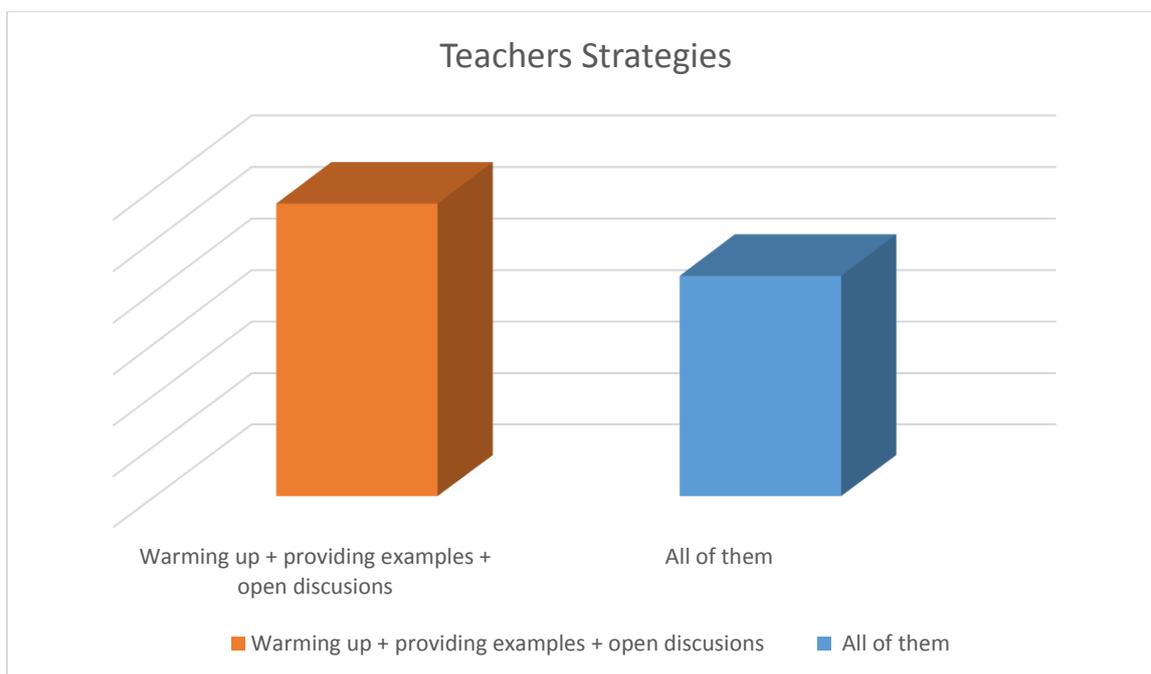
tools used by the teacher. Results show that students focus on different things during lectures due to teachers' aids of teaching and students' learning style or strategy.

### Section Three: Teachers' Methods of Teaching

**Item Eleven:** What is the strategy do you often use to rise your students' lecture comprehension?

Options	Number	Percentage %
Warming up + providing examples + open discussions	4	57.14 %
Warming up tasks + Task engagement + Providing them with examples + Open discussions about the topic	3	42.86 %
Total	7	100 %

**Table 10: Teachers' Strategies in Rising Lecture Comprehension**



**Figure 10: Teachers' Strategies in Rising Lecture Comprehension**

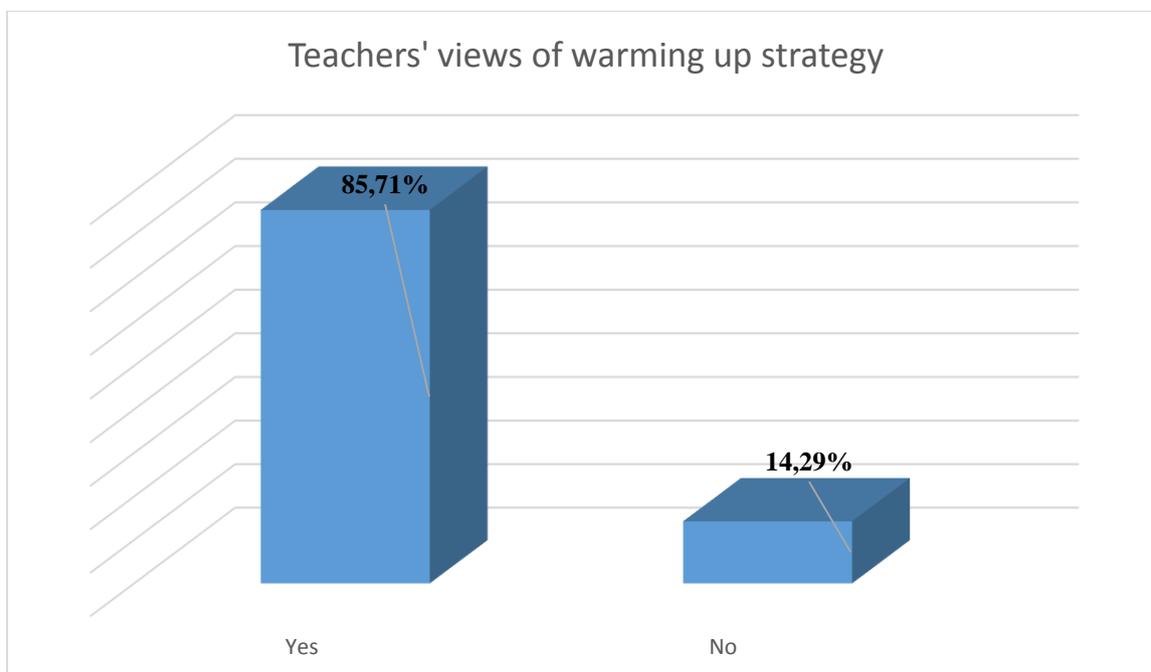
Teachers' strategies in rising students' lecture comprehension differ from one teacher to another. Findings in table 10 and figure 10 show that 4 teachers who represent 57% of the participants use warming up tasks, provide their students with examples, and open

discussions with them concerning the topic of the lecture. The findings also show that 3 teachers who represent 43% use the mentioned strategies and ask their students thought-provoking questions. Results show that teachers use useful strategies to rise students' lecture comprehension and differ them according to the different types of students they have.

**Item Twelve:** The topic of the lecture usually makes student uncomfortable and they may be unwilling to pay attention. Do you see the lead-in (warm-up) activity as a solution to this issue?

Option	Number	Percentage %
Yes	6	85.71 %
No	1	14.29 %
Total	7	100%

**Table 11: Teachers' Views on Warming up Strategy**



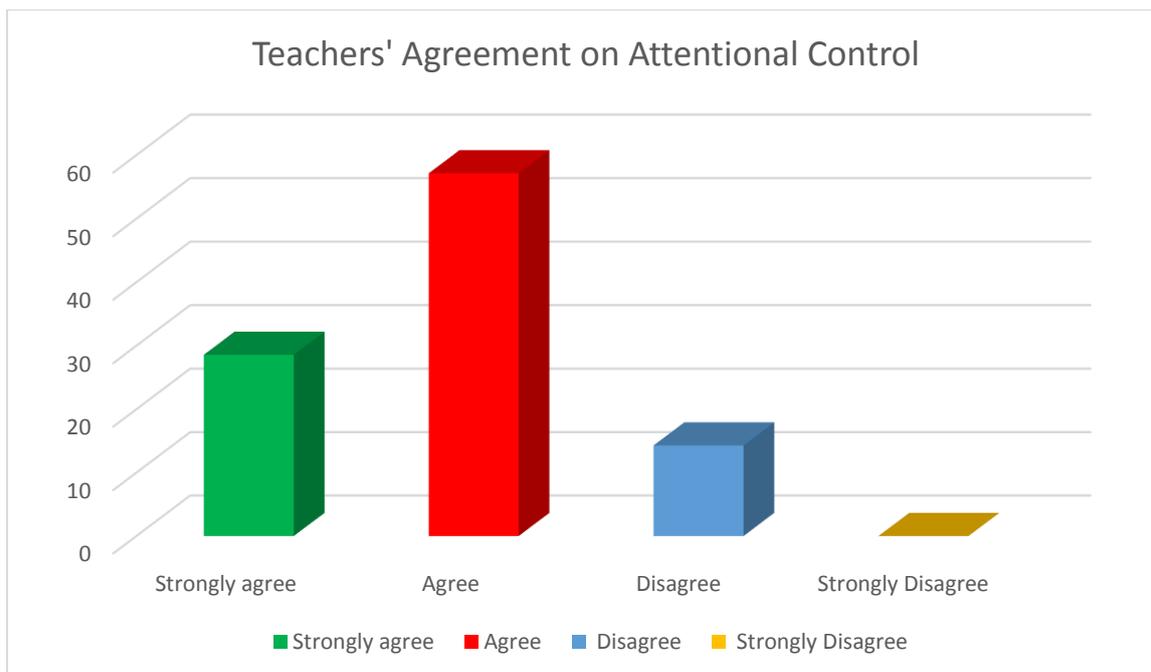
**Figure 11: Teachers' Views on Warming-up Activity**

Results obtained from table 11 and figure 11 show 6 teachers, which represent 85.71%, approve that a warming up activity can reduce topic ambiguity for students, while one teacher 14.29% disapproves it because it is up to the teacher, who have to know what he/she is teaching. The teacher here believes that it is not necessary for students to know the content of the lecture. Most of the teachers agree that warming up activity is useful to hold students' attention during the lecture; while one teacher disagree because only teachers have, the right to know what is the content of the lecture.

**Item Thirteen:** If students choose what to pay attention to, their lecture comprehension will be improved.

	Number	Percentage %
Strongly agree	2	28.57 %
Agree	4	57.14 %
Disagree	1	14.29 %
Strongly disagree	0	0 %
Total	7	100 %

**Table 12: Teachers' Agreement on Attentional Control**



**Figure 12: Teachers' Agreement on Attentional Control**

Table 12 and figure 12 show that 2 teachers who represent 28.57% strongly agree on students' lecture improvement, if they choose what to concentrate on. It is also found that 4 teachers who represent 57.14% of the participants agree, and only one teacher disagrees with the statement. This agreement shows that most teachers believe that in order for students to improve their lecture comprehension, they have to choose what to concentrate on, and what to ignore. While one teacher disagrees because students are unable to control their attention.

### **3.2. Questionnaire for Students**

The current section targets the aims of the questionnaire for students, and the analysis of its results.

#### **3.2.1. Description of the Questionnaire**

In order to answer the research questions that are related to students' attention during lectures, their distractions, and the role of the teachers in enhancing their attention. The questionnaire is the suitable way to collect data concerning the topic. It contains fourteen questions divided into three sections. The first section is devoted for students' background

information; it consists of two questions: the number of lectures in a day, and the aspects of lecture comprehension. This section aims at gathering information about students' time devoted for lectures and their opinion concerning listening and visual comprehension. The second section is concerned with students' attention during lectures; it contains six questions that aim to investigate distractions of attention, and attention span. The third section contains six questions devoted for students' lecture comprehension; it aims to collect data concerning difficulties in lecture comprehension and students' strategies in enhancing comprehension.

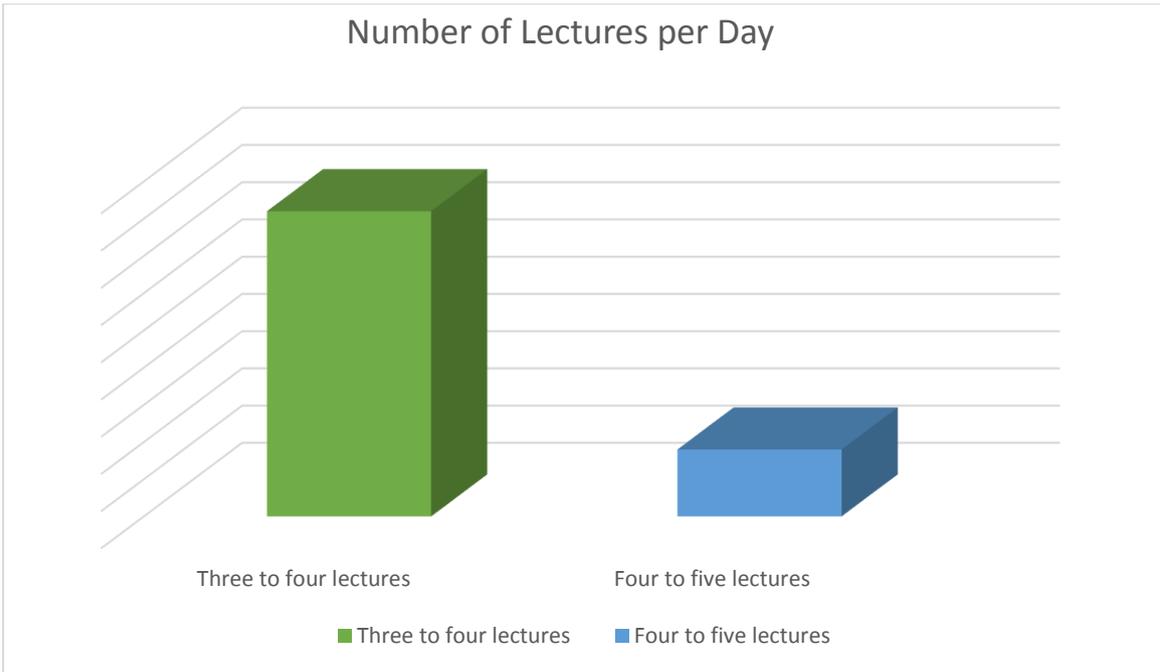
### 3.2.2. Analysis of the Results

#### Section One: Background Information

**Item one:** Hours of lectures per day:

Option	Number	Percentage %
Three to four lectures	41	82%
Four to five lectures	9	18%
Total	50	100 %

**Table 13: Students' Number of Lectures per Day**



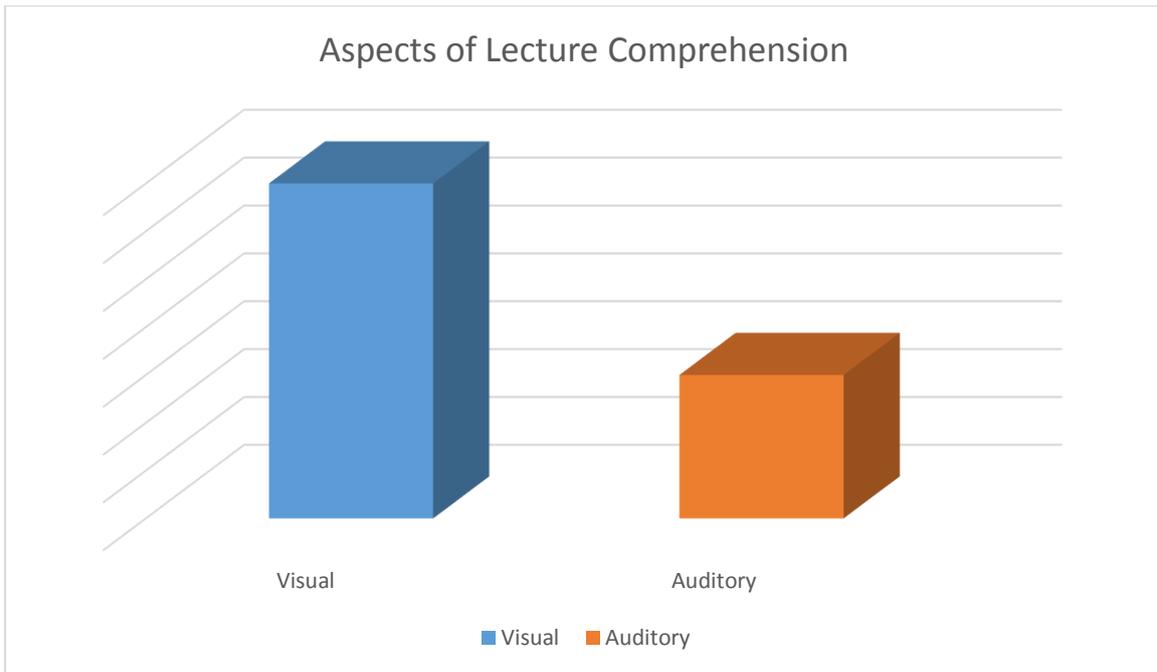
**Figure 13: Students’ Number of Lectures per Day**

Results of this question as shown in table 13 and figure 13 show that 41 students (82%) have chosen three to four lectures per day, while nine students of 18% of the sample have chosen four to five lectures. This question aims to investigate whether the number of lecture per day would affect students and their attention.

**Item Two:** Which aspect is more important for lecture comprehension?

Option	Number	Percentage %
Visual	35	70%
Auditory	15	30%
Total	50	100%

**Table 14: Students’ Opinions on the Important Aspect in Lectures comprehension**



**Figure 14: Students’ Opinion on the Important Aspect in Lecture Comprehension**

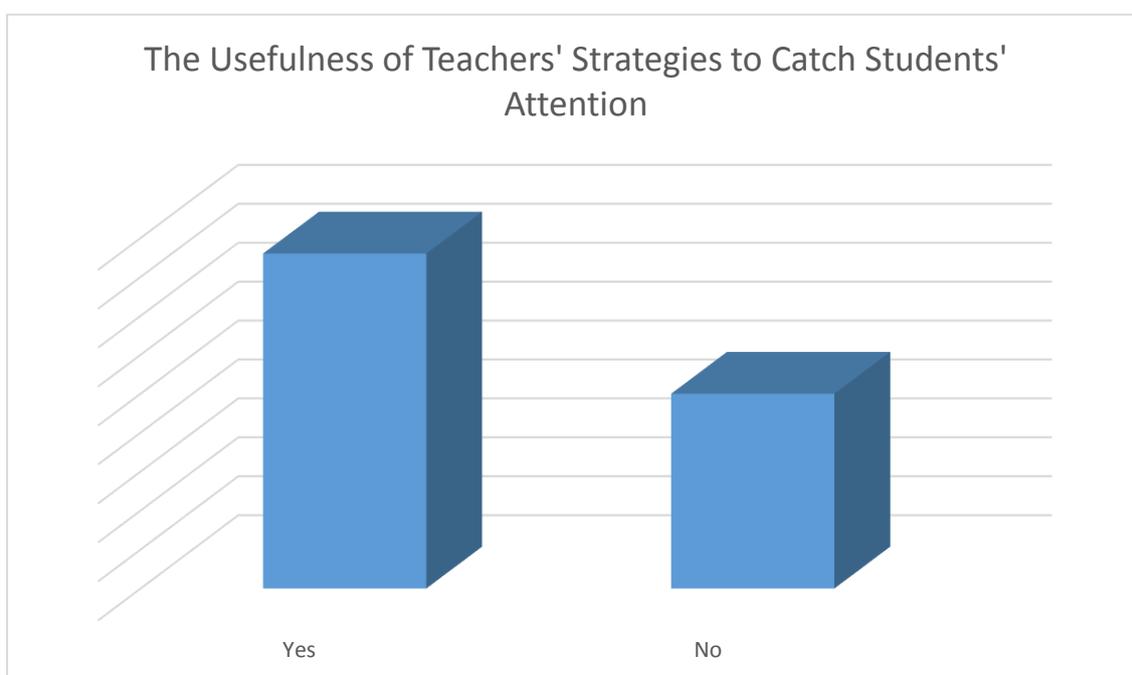
From table 14 and figure 14, it is noticed 35 students (70%) agree that visual skills are important aspect in lecture comprehension; however, 15 students (30%) believe that listening skill is more important in lecture comprehension. This question aims to see students’ opinion concerning visual and auditory aspects of lecture comprehension. It is apparent that visual comprehension is more important for students than auditory comprehension in lectures. Visual comprehension helps students to focus more since they can see the things they are learning.

**Section Two: Students’ Attention during Lectures**

**Item Three:** Are the teachers’ strategies during lectures useful to catch your attention?

Option	Number	Percentage %
Yes	23	46%
No	27	54%
Total	50	100%

**Table 15: The Usefulness of Teachers' Strategies to Catch Students' Attention**



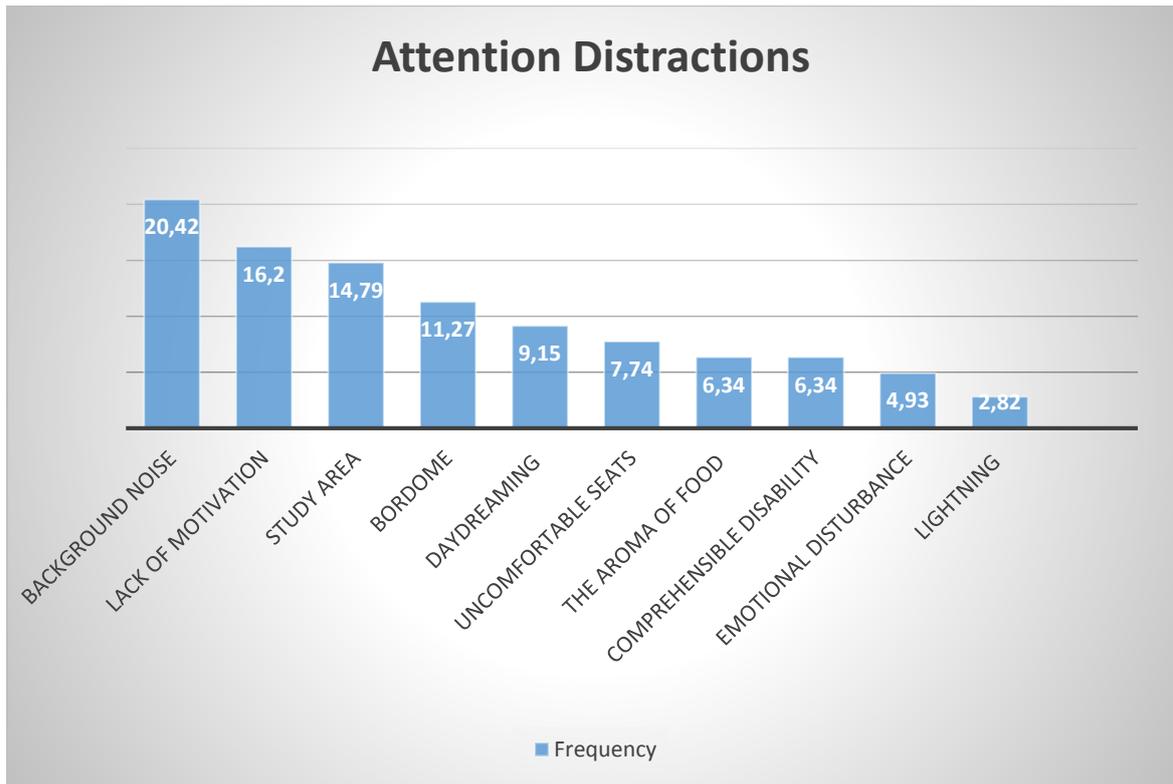
**Figure 15: The Usefulness of Teachers' Strategies to Catch Students' Attention**

According to table 15 and figure 15, 23 students (46%) agree that teachers' strategies during lectures are useful to catch their attention. However, 27 students (54%) disagree. It is noticed that most students think that their teachers' strategies of teaching are not useful to catch their attention during lecture; however, some of them think that teachers' strategies are useful.

**Item Four:** Which of these elements negatively distract you the most from paying attention during lectures?

Option	Frequency	Percentage %
Study area	21	14.79%
Background noise	29	20.42%
Lightning	4	2.82%
Uncomfortable seats	11	7.74%
The aroma of food	9	6.34%
Boredom	16	11.27%
Daydreaming	13	9.15%
Lack of motivation	23	16.20%
Emotional disturbances	7	4.93%
Comprehension disability	9	6.34%
Total	142	100%

**Table 16: Distractions of Students' Attention**



**Figure 16: Distractions of Students' Attention**

It is noticed that the background noise is the most selected distraction by the participants; it represents 20.42% of the choices, while 16.2% of students choose lack of motivation and 14.79% represents students who choose study area. However, students who choose boredom are 9.15% of the participants. 7.74% represents students who select uncomfortable seats. 6.34% represents the selection of the aroma of food, as well as comprehension disability. While 4.93% represents the emotional disturbance element. In the other hand, lighting is the least selected element represented by 2.82%. Since students are disturbed by internal and external distractions, they are advised to update and monitor what the teacher is saying or explaining so that they can focus with the teacher and neglect the distractions.

**Others:**

Student 1: I am always sleepy.

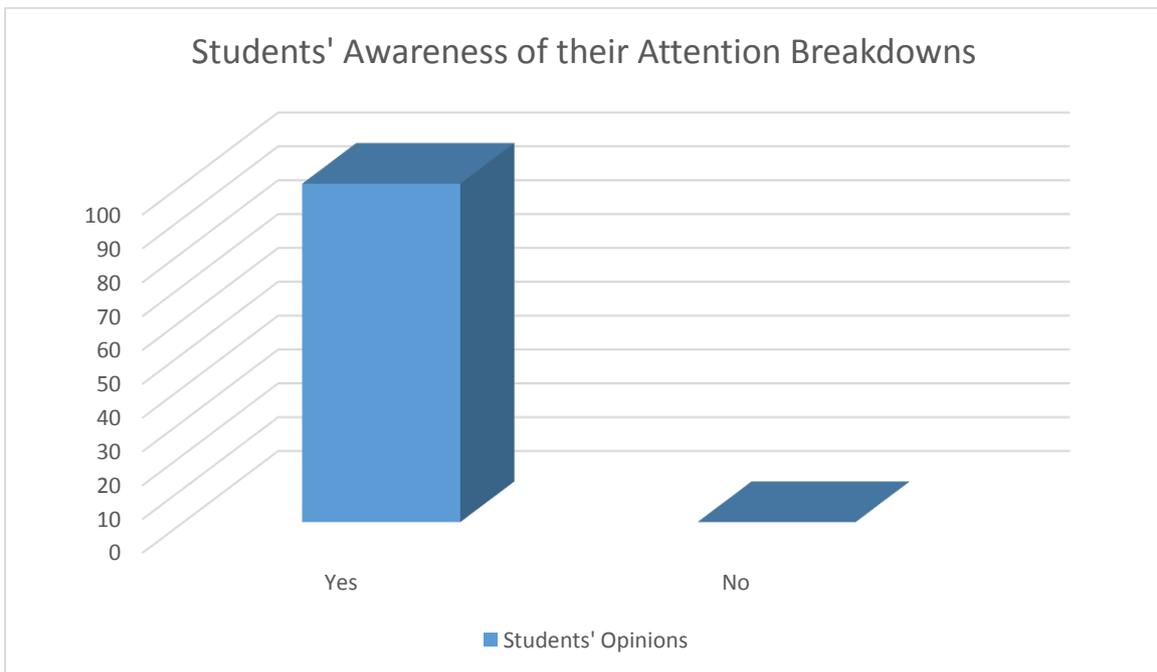
Student 2: Transportation before classes.

Results show that two students of the participants add other factors that interrupt them from paying attention during lectures. Both students addressed physical tiredness because of moving from a class to another between lectures and feeling tired and willing to sleep most of the time.

**Item Five:** Do you usually realize your attention breakdowns during lectures?

Option	Number	Percentage %
Yes	50	100%
No	0	0%
Total	50	100%

**Table 17: Students' Awareness of their Attention Breakdowns**



**Figure 17: Students' Awareness of their Attention Breakdowns**

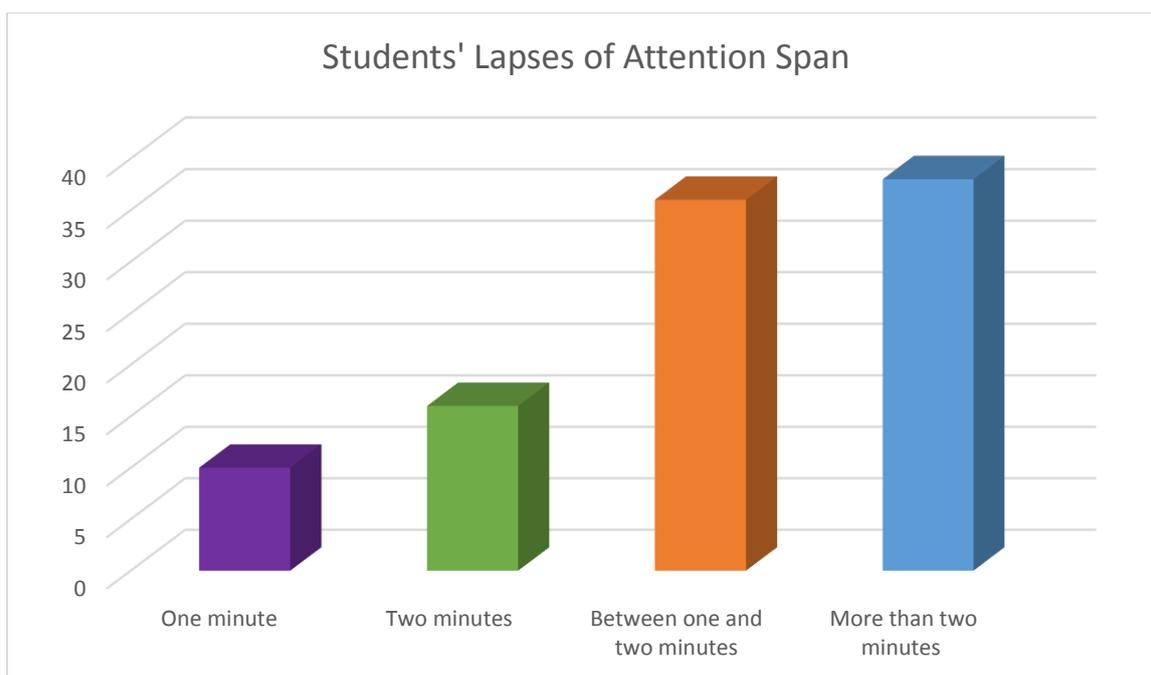
The above table and figure show clearly that all of the participants represent 100% can realize their attention breakdowns when they occur during lectures. Students' awareness of

their attention impairments might help some students to use their attentional control strategies.

**Item Six:** How long do these lapses generally last?

Option	Number	Percentage %
One minute	5	10%
Two minutes	8	16%
Between one and two minutes	18	36%
More than two minutes	19	38%
Total	50	100%

**Table 18: Duration of Students' Lapses in Attention during Lectures**



**Figure 18: Duration of Students' Lapses in Attention**

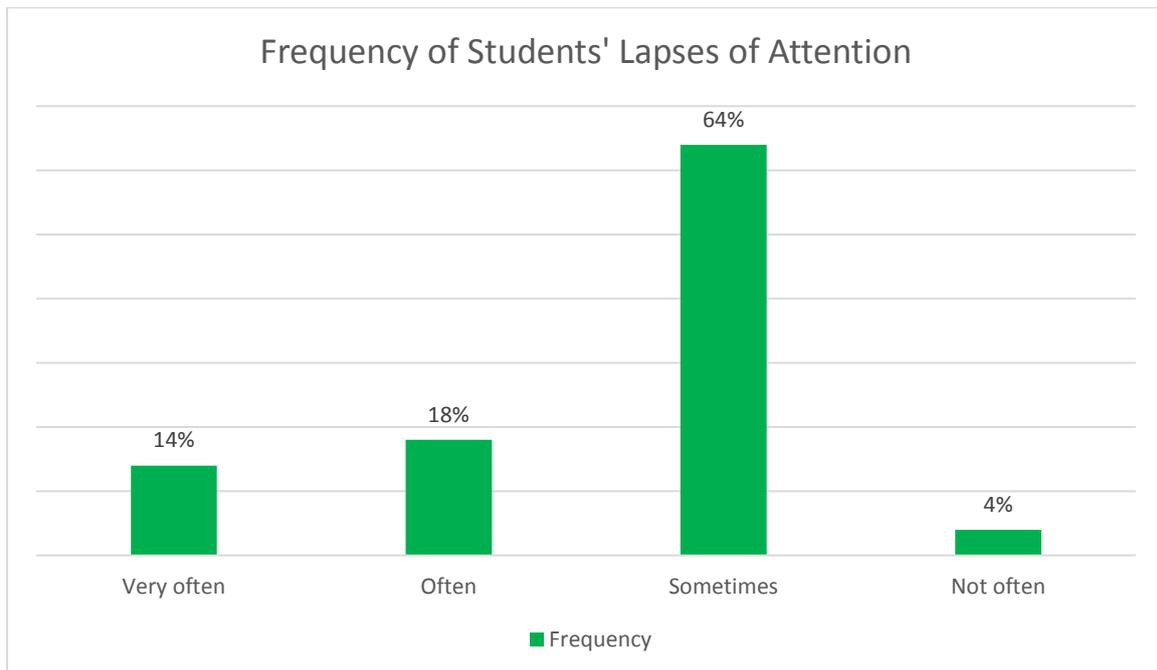
Findings in table 18 and figure 18 show that, 19 students (38%) assert that their lapses of attention takes more than two minutes long. While 18 students (36%) state that their lapses last between one to two minutes long, 8 students (16%) claim that their lapses last for two minutes, and 5 students (10%) assert that their lapses are one minute long. These results

indicate that students' lapses of attention are different in their span; and mostly long in duration, this issue might be a result of the different distractions students are exposed to.

**Item Seven:** How often these lapses happen during lectures?

Option	Number	Percentage %
Very often	7	14%
Often	9	18%
Sometimes	32	64%
Not often	2	4%
Total	50	100%

**Table 19: Frequency of Attention Lapses in a Lecture**



**Figure 19: Frequency of Attention Lapses in a Lecture**

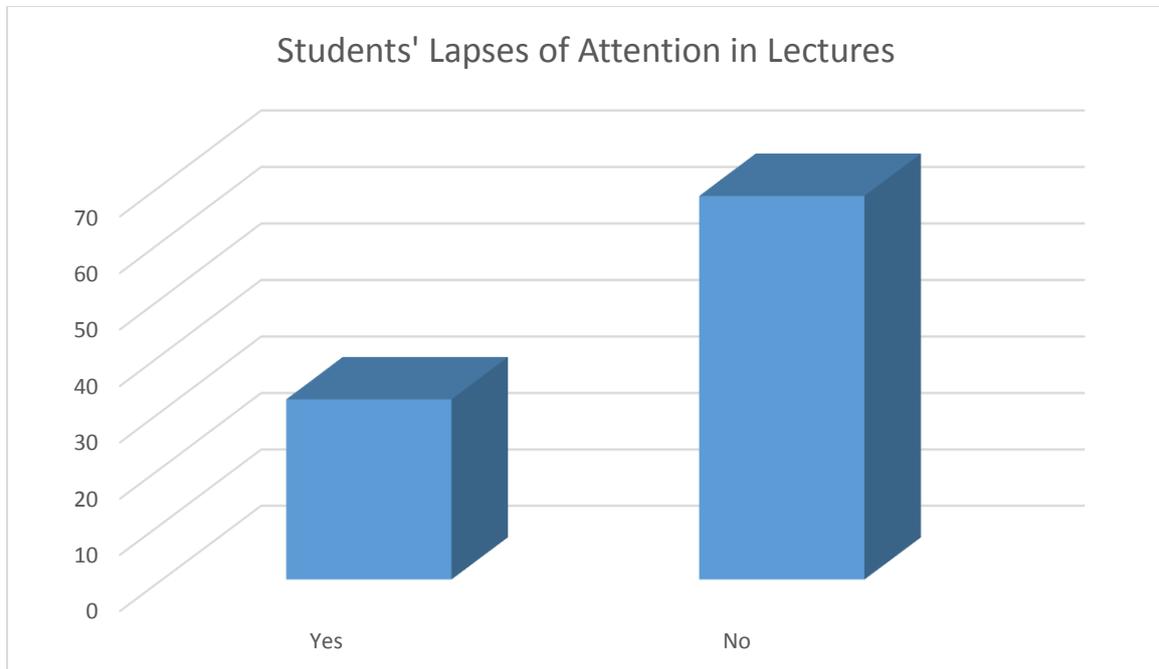
This question aims to find out the frequency of students' lapses of attention during lectures. The majority of responses, 32 of them representing 64% claim that their lapses sometimes happen during a lecture. While 9 of the participants representing 18% state that

their lapses often happen during a lecture. Seven students representing 14% choose “very often” as response for this question, and 2 students representing 4% assert that their lapses do not often occur during a lecture. It is found that most students’ lapses sometimes happen during a lecture, and this could be a result of teachers’ strategies or students’ awareness and abilities of controlling their attention.

**Item Eight:** Does it happen in all lectures?

Option	Number	Percentage %
Yes	16	32%
No	34	68%
Total	50	100%

**Table 20: Students’ Lapses of Attention in Lectures**



**Figure 20: Students’ Lapses of Attention in Lectures**

From the table 20 and figure 20, 32 of the participants representing 32% claim that their lapses of attention happen in all lectures, while 34 of the students representing 68% state that their lapses do not occur in all lectures and only in a few of them. It is noticed that the majority of students do not have attention breakdowns during all lectures, and this might be a result of interest in the other modules, or teachers' ability to hold their students' attention.

### Section Three: Students' Lecture Comprehension

**Item Nine:** Lectures that are hard to pay attention to:

<b>Module</b>	<b>Number</b>	<b>Percentage %</b>
<b>Applied linguistics</b>	26	20.63%
<b>Research Methodology</b>	20	15.87%
<b>Written expression</b>	16	12.70%
<b>Pragmatics</b>	16	12.70%
<b>Educational Psychology</b>	16	12.70%
<b>Discourse Analysis</b>	14	11.11%
<b>Didactics</b>	10	7.94%
<b>Acquisition process</b>	8	6.35%

**Table 21: Lectures that Are Hard to Pay Attention to**

Results in table 21 show that the most selected lecture is Applied Linguistics, which represents 20.63% of all the responses. The second selected lecture is Research Methodology, which represents 15.87%. Witten Expression, Pragmatics and Educational Psychology have the same percentage, they represent 12.70% of the selected lectures. While 14 students choose discourse analysis and it represents 11.11%. However, 7.94% is the representation of Didactics, and 6.35% represents Acquisition process. It is noticed that

lectures like Applied Linguistics and Research Methodology have the majority of votes, and they are the most selected modules that are hard to pay attention to, selection decreases in Written Expression, Pragmatics, Educational Psychology, and Pragmatics. While Acquisition process is the least selected module among them. These results and differences in the lectures that are hard to pay attention to are due to different reason, mainly; teachers' defective method of teaching, and the timing of those lectures.

**Item Ten:** Being inattentive to these lectures is due to:

Distractions	Number	Percentage %
Timing of the lecture	17	16.67%
Defective method of teaching	31	30.39%
Defective voice of the teacher	17	16.67%
Improper use of teaching aids	10	9.8%
Lack of interest	11	10.78%
Dislike of the subject	4	3.92%
Surprised by the subject content	12	11.76%

**Table 22: Reasons of Students' Inattentiveness**

The question aims to gather information about what makes some lectures hard to pay attention to and make students witness some breaks in attention. It is found that most students point out at the defective method of teaching as an element of distraction; it represents 30.39%. While 17 students choose the timing of the lecture, which represents 16.67%, which is the same with defective voice of the teacher, 17 participants represented by 16.67%. Furthermore, 12 students select the element of being surprised by the content of the subject; it represents 11.76%. Moreover, 11 students representing 10.78% select "lack of interest", and 10 students representing 9.8% choose improper use of teaching aids. While 4 of the

participants- represent (3.92%) select dislike of the subject as a distracting element. It is noticed that defective method of teaching, defective voice of the teacher and timing of the lecture are the top three selected elements of distraction for students. Elements like lack of interest, content ambiguity, and improper use of teaching aids have a remarkable percentage compared to the dislike of the subject, which is the least selected element by the students. To reduce these obstacles or distractions students' are requested to stop judging the teacher's way of lecturing and focus more on the content (Ellis, 2009).

**Others:**

Student 1: Some teachers lose control of the class so I feel uncomfortable to pay attention to what the teacher is saying.

Student 2: Teacher's way of explanation, they take a long time talking out of the lecture.

Student 3: When the teacher tries to talk about other subjects rather than the course itself, trying to give students examples, which do not match with the content, in order to impose his/ her thoughts.

Student 4: Teachers spend most of the time talking out of the subject of the lecture.

Student 5: Teachers talking out of topic, for a remarkable period.

From the above answers, students add some other distracting elements that make them witness breaks in attention during some lectures. 4 students pointed out that their teachers spend most of the time allocated for the lecture talking out of the subject i.e. teachers' divert while explaining their lectures. A student points out at teachers also losing control of the classroom environment, which makes noise and that, makes it hard to concentrate with what the teacher is saying. It is noticed that students are distracted by the teacher's expended talk out of the lecture, and teachers' inability of classroom management.

**Item Eleven:** What are the appropriate strategies that could rebuild your attention after you witness a break?

Option	Number	Percentage %
Taking notes	8	21.05%
Self-motivation	15	39.47%
Teachers' strategies	11	28.94%
Others (asking classmates, asking the teacher, taking a break, and recording the lecture)	4	10.53%
Total	38	100%

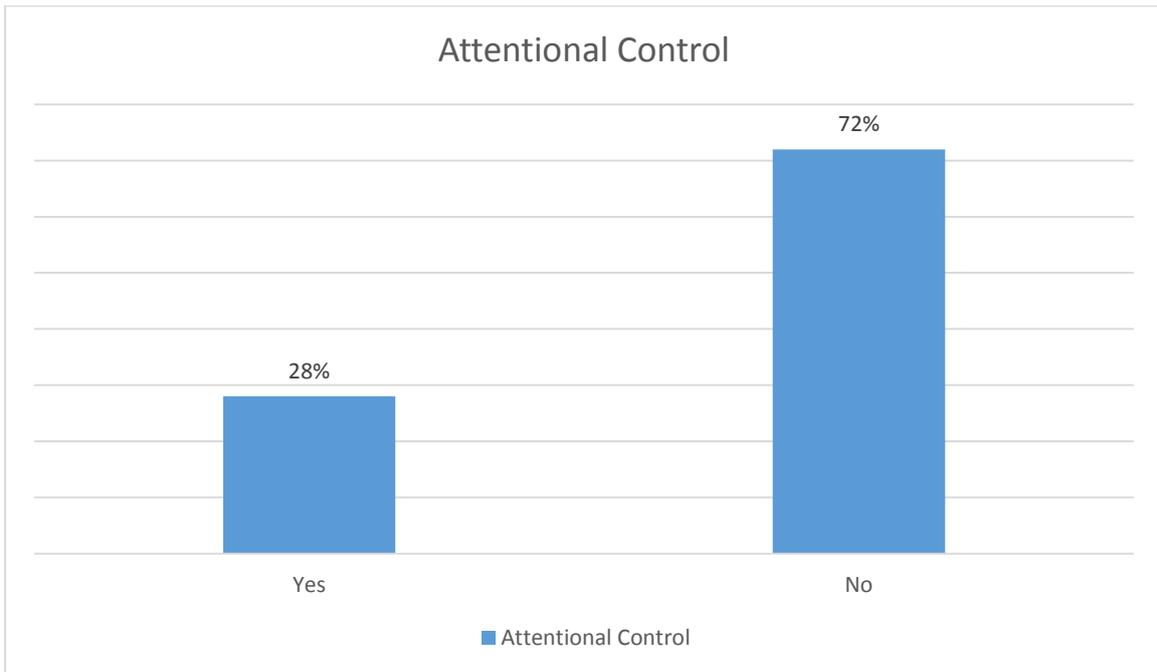
**Table 23: Students' Strategies in Rebuilding their Attention after an Impairment**

From their answers, it is found that students use different strategies to rebuild their attention after they witness a breakdown. It is also found that there are common strategies among them. Eight students representing 21.05% claim that note taking is a useful strategy to rebuild attention, and if they lose attention and miss a point, they reread what they wrote, and focus with the teacher to catch what they missed, while 15 students representing 39.47% rely on motivating themselves to neglect distractions and try to focus with their teacher. Moreover, 11 students (28.94%) think that, their teachers' strategies assist them to pay attention more like active lecturing, movement, voice and eye contact. However, 4 students representing 10.53% try to ask their teachers questions to clarify or repeat, ask their classmates of what they miss and try to read their classmates' notes, record the lecture for later use, and take a short break. Results of the question show that 38 students of the participants are using useful strategies to catch their attention back after they witness a breakdown, by taking notes, self-motivation, and classmates and teachers assistance. While the rest of the participants, 12 students did not answer the question.

**Item Twelve:** Are you familiar with the term Attentional Control?

Option	Number	Percentage %
Yes	14	28%
No	36	72%
Total	50	100%

**Table 24: Familiarity with Attentional Control**



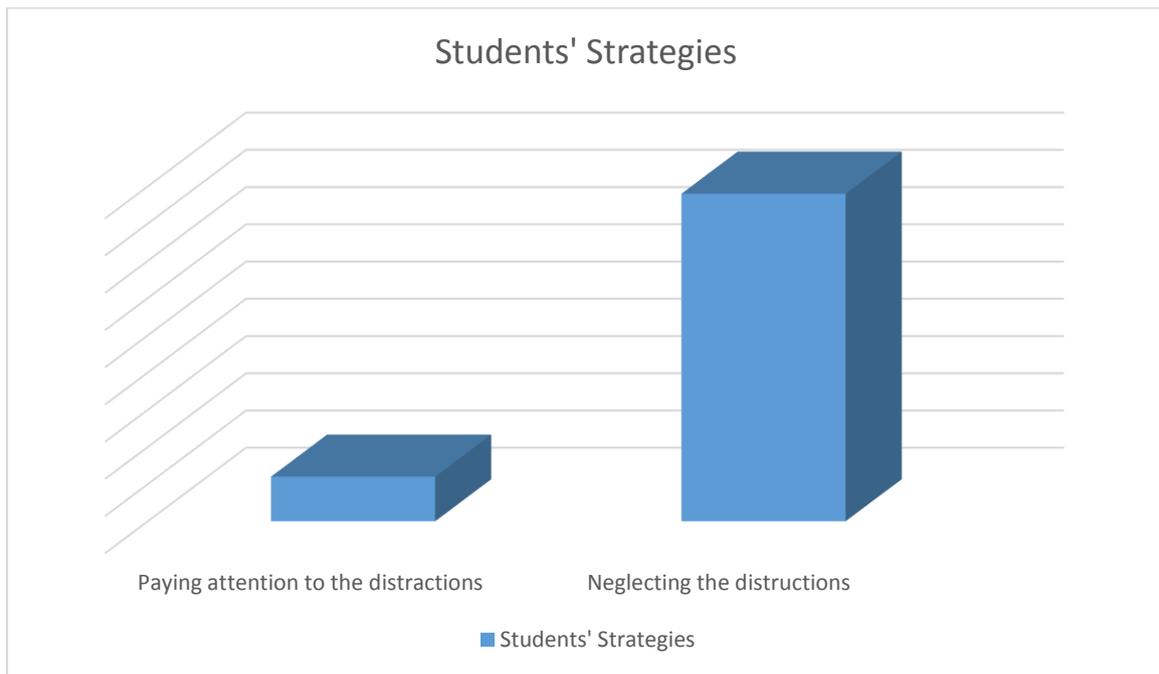
**Figure 21: Familiarity with the Term Attentional Control**

When they are asked about the familiarity with the term Attentional Control, students gave different answers. Findings show that 36 students (72%) are not familiar with this term. In contrast, 14 students representing 28% are familiar with it. This question aims at investigating students' background knowledge concerning attentional control.

**Item Thirteen:** How do you react to the distractions that are likely to happen in the same setting?

Option	Number	Percentage %
You pay attention to the distraction and you neglect the lecture	6	12%
You try not to pay attention to the distraction and motivate yourself to focus on the lecture	44	88%
Total	50	100%

**Table 25: Students' Strategy as a Reaction to the Distractions**



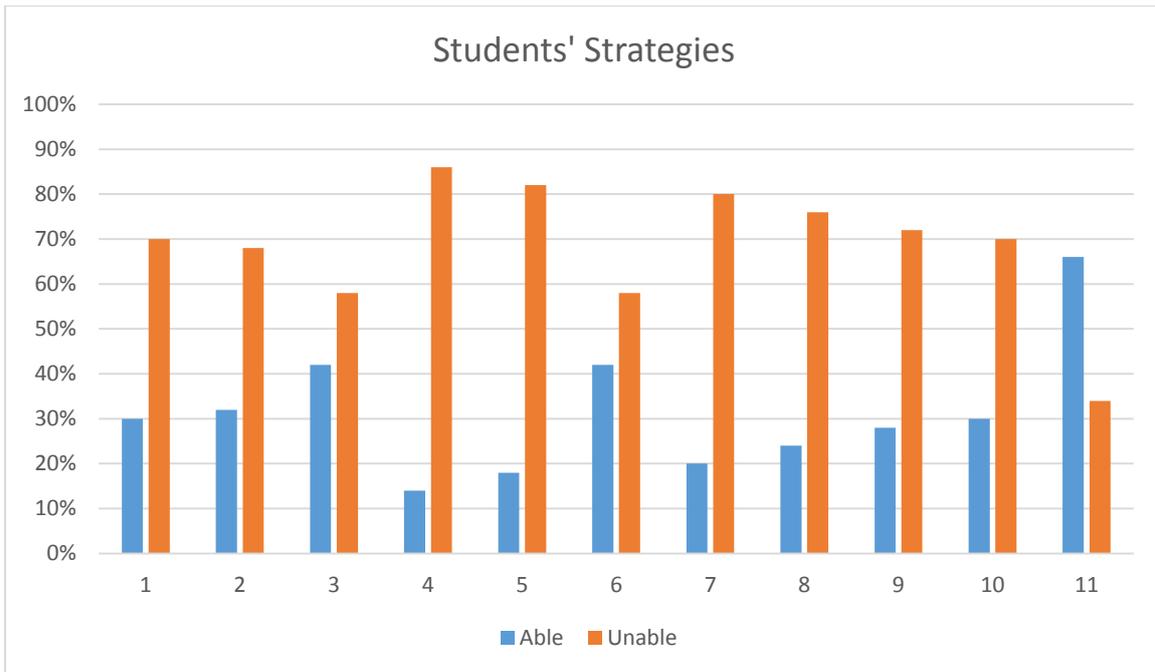
**Figure 22: Students' Strategy as a Reaction to the Distractions**

When the question about what strategy students use when they are faced with a distraction that causes them a breakdown in attention was asked, results reveal that the majority of the participants try not to pay attention to the distraction and motivate themselves to focus on the lecture, particularly 44 students representing 88%. While the rest of the participants, 6 students who represent 12%, claim that they pay attention to the distraction and they neglect the lecture when faced with a similar situation. It is noticed that most students use their attentional control when encounter distractions, whereas few of them do not use it at all.

**Item Fourteen:** When you next encounter a similar situation in a different lecture, you are more likely going to be able or unable to: tick (✓) the answer that is more relevant to your situation:

Strategies	Able	Percentage%	Unable	Percentage%
Inhibit the distractions and stop them	15	30%	35	70%
Shift my attention to stimuli that are mostly relevant to the task	16	32%	34	68%
Organize my priorities to achieve my goal	21	42%	29	58%
Prevent stimuli unrelated to task	7	14%	43	86%
Analyse or examine the incoming information or data	9	18%	41	82%
Ask the teacher to repeat or re-explain if possible	21	42%	29	58%
Update the incoming data and monitor it based on my background knowledge	10	20%	40	80%
Recall information from an auditory lecture	12	24%	38	76%
Stay focused for a long period as my classmates do	14	28%	36	72%
Follow teacher's instructions	15	30%	35	70%
Take notes of the important ideas the teacher is providing me	33	66%	17	34%

**Table 26: Students' Strategies during Lectures**



**Figure 23: Students’ Strategies during Lectures**

The question aims at investigating students’ ability to use some strategies concerning the executive functions of attentional control. We notice that, in general, most of the students are unable to use the strategies except for note-taking strategy. For the first strategy, inhibiting the distractions and stopping them, 15 students who represent 30% are able to do it, while 35 of the participants who represent 70% are unable. The second strategy is: “shifting attention to stimuli relevant to the task”, 16 students who represent 32% point that they are able to use this strategy, and 34 students representing 68% choose “unable”. The third strategy is, organizing priorities to achieve goals, 21 students representing 42% claim that they are able, while 29 students representing 58% choose “unable”. Prevent stimuli unrelated to task learning is the fourth strategy, 7 students representing 14% answer that they are able, while 43 students who represent 86% choose unable. Furthermore, with strategy number five, 9 students (18%) consider themselves able to analyse and examine the incoming information, but 41 students representing 82% choose “unable”. Strategy number six is about asking the teacher to repeat, 21 students who represent 42% choose able,

however 29 of the participants (58%) claim that they are unable to do it. Moreover, 10 students (20%) claim that they are able to update the incoming data and monitor it based on their background knowledge, but 40 of them (80%) claim that they are unable to use this strategy. Concerning the strategy of recalling information from an auditory lecture, 12 students are able to do it, whereas 72 of them are unable. Fifteen students (30%) see themselves able to follow teachers' instructions, but 35 of them are unable. 33 students representing 66% claim that they are able of taking notes of the important ideas the teacher is providing them, though 17 students representing 34% claim that they are unable to do so.

It is concluded that few students use executive functions like inhibiting distractions, shifting attention to a stimulus related to the lecture, and updating information, while most of students are unable to use them. It is also found that most students have some listening comprehension difficulties since they are unable to recall information from an auditory lecture or to follow teachers' instructions. Another important finding is that most students use note-taking strategy to help them pay attention as well as comprehend the lecture's content.

### **3.3. The Interview with a Psychiatrist**

The interview with a psychiatrist aims at gaining information from an expert in the field of students' psychology. This section, therefore, is devoted for describing the interview, and analysing its findings.

#### **3.3.1. Description of the Interview**

This present interview seeks to gather information about students' attention during lectures, the distractions that prevent them from paying attention, and how they can fix and attain it. Furthermore, it tends to explore the role of lectures in enhancing students' attention and comprehension. It is a semi-structured interview that consists of six questions, the first question aims to investigate the role of attention in learning, the second question aims to

gather information about what affects students' attention during lectures. For the third question, it aims to see distractions of students' attention. The fourth question targets the role of lectures in students' attention. Moreover, it seeks to present some tips for students to assist them increase their attention and lecture comprehension in the fifth question, in addition to some skills for students to increase comprehension in the sixth question.

### **3.3.2. Analysis of the Results**

**Question One:** Does attention affect the ability to learn?

Psychiatrist: Yes, it does.

From the psychologist answer, we notice that attention influences the ability to learn. According to her, to learn something, one needs to attend it. If the information is presented in a clear and comprehensible way, and students are paying attention to it, they will learn with no difficulties.

**Question Two:** What are the factors that affect students' attention?

Psychiatrist: In general, Students' attention during lectures is affected by two major factors. The students themselves and the classroom environment. For the first group, student's attention is disturbed by his or her psychological factors, and perception ability. The second group is classroom environment; it contains a lot of effecting factors from both inside and outside the classroom besides the nature of the subject, methods and techniques of teaching. The tools used in teaching, besides the number of students in one classroom also affect students' attention and their comprehension.

From the aforementioned answer, one may notice that students' attention during lectures is affected by different factors. These factors are related to students and their surroundings, their mental and physical state, the teacher's methods of teaching, and classroom

environment. We conclude that students themselves and the classroom environment affect students' attention during lectures.

**Question Three:** What are the distractions that drive students' attention away from the lecture?

Psychiatrist: There are two types

- 1- Internal distractions: which include
  - a- Physiological distractions
    - Physical tiredness may infer negatively students from paying attention.
    - Malnutrition affects students' attention for a long period.
  - b- Psychological distractions:
    - Anxiety and obsessive ideas that affect students' thoughts and distract them from paying attention.
- 2- External distractions: they include social and physical factors
  - a- Social factors
    - Family situation may affect and distract students' attention, like poverty and divorce, or the unstable parents' relationship.
  - b- Physical factors
    - Physical factors include all the surroundings of the student like a low or high lightning, temperature, and the background noise. All these elements disturb negatively in decreasing students' attention.
    - Overcrowded classrooms and unorganized ones increase noise, which is a basic distraction for students' attention.

The results show that students' attention is distracted by two main factors, internal and external distraction. We notice that the internal distractions are related to students' physical

state and psychological needs like tiredness, and motivation. For the external factors, there are different areas that interfere within students' attention like the social state of the student and parents' issues, besides the classroom environment, which may be overcrowded and unorganized.

**Question Four:** How do lecturers affect student's attention?

Psychiatrist: Lecturers affect their students' attention through the methods of teaching and their techniques.

Methods and techniques of teaching: they differ from a teacher to another. Some teachers use the same method in all their lectures and they bring almost no variation to their techniques. As an example, some teachers use lecturing in which they provide no chance for students to take part during the lecture.

Interaction inside the classroom: learning atmosphere has a great impact on students' attention. Teacher's attitude and behaviour with his/ her students during the lecture is important to have their attention. The way a teacher makes visual contacts, and the way he/she perceives and answers their questions and concerns should be appropriated to motivate them and not to neglect them.

Teachers are required to vary their techniques of teaching and bring some changes to the lecture. They are required to use learners based pedagogy and increase interaction between their students, as well as preparing lessons.

Concerning lecturers, results show that they may increase or decrease their students' attention during the lecture through their method of teaching and their attitude. We notice that students' attention is decreased when lecturers use the same method of teaching and lectures in which teachers are the centre while students are passive. However, lecturers are able to increase attention over active learning and active lectures by applying different

strategies and increase interaction during the lecture. We conclude that teachers are one of the factors that affect attention by their method and techniques of teaching.

**Question Five:** Would you suggest some tips to better attention during lectures?

Psychiatrist: In order for students to pay attention and improve their lecture comprehension, I advise students to choose what to pay attention to. In other words, students are required to pay attention to stimuli related to the task or the lecture and eliminate or execute unrelated stimuli. As an example, I assume that students must focus on their teacher's voice, and not to listen to the background noise, weather inside or outside the classroom. Focusing on what is written on the board or the handouts rather than what is written in tables or walls can assist students to exclude distractions and focus with the teacher.

The psychiatrist suggests that students are required to choose what to pay attention to i.e. choosing to focus with the teacher and to neglect the distractions to improve attention and lecture comprehension as well. She suggests that students must focus with the teachers' voice or focus on something written on the board to improve their attention.

**Question Six:** How can students improve their lecture comprehension?

Psychiatrist: In order for students to increase comprehension, they have to attend to it first. I suggest some concentrating skills that can assist students to pay attention, so that they can comprehend:

- Training to pay attention to visual stimuli: like colours, colouring key words in the handout can increase students' attention, and underlining can assist as well.
- Training to pay attention to auditory stimuli: like the teacher's voice. Recording the lecture and listening to it at home increases comprehension and facilitates attention process.

It is clear that the psychologist is advising students to use colours or underline the key words on their handouts as it assists them to increase their attention. She also advises students with less listening comprehension ability to record the lecture and listen to it at home, so that they increase their comprehension and decrease ambiguity if they miss a point or two during the lecture.

### **3.4. Discussion**

The results supported a clear link between students' lecture comprehension and their attentional control. However, most of Master one learners of English at Biskra University are unable to use their attentional control, since they are not using the executive functions strategies. It is found that students have different factors disturbing their attention during lectures, external and internal factors, particularly, background noise, study area, lack of motivation, and boredom. It is, therefore, suggests that students need to move to the front of the classroom, and ask politely their classmates to stop making noise. They are also advised to take breaks and then recall their previous knowledge concerning the lecture and try to focus with the lecturer.

It is also found that students can notice their attention loss during the lecture and most of them are able to inhibit the distractions and try to motivate themselves to focus again. Another important finding is that students' loss of attention is highly remarkable in some lectures rather than others, due to the lecturers' defective method of teaching, timing of the lecture, and the defective voice of the teacher. Students, therefore, are recommended to focus not on judging the way the lecturer presents the content, but to try focusing on the content, take notes and then organize the content in the appealing way. They also can gently ask their lecturer to raise his/her voice.

Teachers' talk out of the topic for a long period is considered as a distraction for students' attention. They, therefore, use some strategies to hold their attention during the

lecture, such as note-taking strategy to stay focused during the lecture, asking the lecturer to repeat or asking classmates to clarify for them what they have missed. A major finding in the analysis of the questionnaire for students is their inability to use the different strategies and executive functions of their attentional control. Hence, students are requested to train their executive functions of attentional control, and improve their concentrating skills.

Concerning the findings in the questionnaire for teachers, it is highly notable that teachers use different strategies to maintain the various learning styles of their students. One of the main strategies is the warming up task, which might prevent students' loss of attention because of the subject ambiguity, besides engaging students more in tasks. Teachers are supposed to have multiple skills to deal with students' attention during lectures, like classroom management, and lesson plan skills. They might also use the massive number of students' in their classrooms by giving them the chance to help each other.

The interview with a psychiatrist aims at collecting data from an expert in the field of students' psychology. Results show that students' attention is disturbed by internal and external distractions, but they might motivate themselves to inhibit those distractions and try to focus on the lecture. Students, therefore, might use some strategies, such as training their visual and listening skills to focus with the handouts or the teacher's voice to inhibit the distractions and strengthen their attention. It is also found that teachers or lecturers could help students to improve their attention and their comprehension during lectures by applying different strategies while teaching.

### **3.5. Recommendations**

From the findings of the present study, several suggestions can be useful for future studies to investigate the effects of attentional control in rising EFL learners' lecture comprehension:

- Lecturers should vary their teaching tools during lectures to attain students' attention.
- Warming up tasks sound a good basis for more comprehensible lecture.
- Lecturers should enhance students to take notes during lectures because it helps them to focus and increase their comprehension of the lecture.
- It is important to train EFL learners to develop their listening and reading skills to facilitate comprehension.
- Lecturers should reduce the time they spend talking out of the subject of the lecture since it disturbs students' attention.
- Students' attention is distracted by external and internal factors, which they can inhibit by using different strategies.
- It is noteworthy that without attention, the student might not grasp the information. Students, therefore, are asked to develop their concentration skills.
- Since students have different backgrounds, it is recommended to investigate the difficulties of concentration and the strategies of learning at the level of high school institutions.
- Attentional control and its executive functions are beneficial strategies recommended for the struggled learners, who have concentration difficulties during lectures. They are also recommended for further investigations about their impact during exams.

## **Conclusion**

The findings presented in this chapter can be summarised in three principle points, the first point is students' ability to choose what to pay attention to during lectures. The second point, if students have an improved attentional control their lecture comprehension is more likely to be improved. The third point is devoted to teachers' role in motivating students to

pay attention and facilitate comprehension. This chapter presents the findings of both students and teachers' questionnaires, and the interview with a psychiatrist; it can be concluded that students' attention is distracted by internal and external factors. Meanwhile, in increasing and improving students' attention both internal and external factors are involved. Moreover, students who are able to control their attention and execute distractions by using the executive functions are able to increase their lecture comprehension. Finally, results in this chapter also support the role of teachers in increasing students' lecture comprehension by motivating them to pay attention.

To sum up, the conclusions in this study have provided an important finding which is students' ability to control their attention using executive functions.

## **General Conclusion**

Literature review has proved that in order for students to understand what they are learning, they need to attend to the incoming data first. Paying attention during lectures involves students to inhibit the distractions, shift their focus to the teacher, and monitor the knowledge they are receiving. These strategies are known as the executive functions of attentional control, which are responsible for the individual's ability to control their attention and shift it, in order to help students to understand their lectures. Hence, lecturers are requested to have varied teaching skills to deal with the different styles of learners in order to promote their understanding. Comprehension of lectures involves a set of skills including listening, reading and visual comprehension so that students can manage to understand and grasp the different components of the lecture.

The main aim of this work is to highlight the importance of attentional control in rising EFL learners' lecture comprehension. This study, therefore, investigates students' distractions during lectures that may hinder their attention, the strategies they use to regain their attention, and how well they use the executive functions of attentional control. Moreover, this study attempts to investigate students' perceptions towards their teachers' strategies effectiveness in catching their students' attention. This work is conducted also for the aim of providing teachers with some strategies, which could help in retaining their students' attention, besides some other strategies for students that could help them focus during their lectures and execute the different distractions. It also attempts to extract information from the point of view of a professional psychiatrist concerning the attention of students during their lectures, who provided some concentrating skills that could help students control their attention.

This present study is divided into three chapters. The theoretical part of this research includes two chapters, which are devoted to literature review concerning the nature of attention and lecture comprehension. While the practical part of this study contains chapter three that used questionnaire and interview research tools instruments to investigate the reasons of the failure in students' attention, the ways it can be rebuild by students themselves and with the assistance of their teachers. Furthermore, students' perceptions towards teachers' strategies, the perceptions of the teachers towards the behaviour of students during lectures and a psychiatrist's view of the attention process of students during lectures.

Results have shown that students face some internal and external distractions effecting their attention during lectures. The internal distractions are involved within some psychological, physical and social factors such as lack of motivation, boredom and daydreaming, while the external factors are concerned with the learning environment, teachers' strategies of teaching, for example, the study area and the background noise. Moreover, findings have provided a confirmation that students are able to choose what to pay attention to during lectures, and that they use some strategies to strengthen their attention and to recapture it, such as note taking, and self-motivation. However, Master one EFL learners of Mohamed Khider University of Biskra are not familiar with the executive functions of attentional control as well as the total agreement on the teachers' significant role in capturing their students attention. It is also proved that attention is an effective factor for a better comprehension. Results of this study affirm the hypothesis that if students choose what to pay attention to, their lecture comprehension will be improved.

This present work has been conducted with two instruments out of three, due to time limitations. Regarding the interview, a general psychiatrist was interviewed instead of an educational one, because of its inaccessibility. The study has been limited to an untypical sample, which hinders the generalization of the findings to all students.

The significance of the findings of this work is distributed to both students and teachers. Students have an idea about the impact of attentional control and its executive functions in improving their lecture comprehension, besides the different strategies that they can use during lectures to improve their attention. For the teachers, they have a clear idea about students' attention, and the major part they have in improving it using different strategies. This study provides teachers with some tips and strategies they can use to change tasks during the lecture. Some researchers investigated the role of teachers in motivating students to pay attention to enhance their academic achievement, but they neglected the students' role in motivating themselves to pay attention. This present study aimed to investigate students' attentional control effects on their comprehension of the lectures, besides the teachers' assistance.

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## **Appendices**

Appendix A: The questionnaire for Teachers

Appendix B: The questionnaire for Students

Appendix C: The Interview with a Psychiatrist in Arabic

Appendix D: The Interview with a Psychiatrist in English

## Appendix A

### Questionnaire for Teachers

This questionnaire is a part of a research that aims to investigate the role of attentional control in rising EFL student's lecture comprehension. We would appreciate it if you assist us by completing the following questions. Please note that your response will be anonymous. Thank you for your cooperation.

#### Section One: Personal Information

Please tick in the appropriate response:

1- Gender : a- Female  b- Male

2- For how long have you been teaching at the university?

.....

3- Which modules do you teach Master one students?

.....

4- How do you explain your course?

a- Lecturing

b- Handouts

c- Dictation

d- Writing on the blackboard

Others, please specify

.....

.....

## Section Two: Students' Attention and Lecture Comprehension

5- How many students are not paying attention at any moment in a lecture do you usually notice?

a- All students

b- Most students

c- Few students

d- No students

6- Which aspect is more important in lecture comprehension?

Auditory

Visual

Both

7- What are the characteristics that inattentive students have?

a- Nodding off

b- Texting

c- Laughing

d- Talking out of the lecture

e- Eating

f- Gazing distractedly at some point of the classroom

Others, please specify

.....

8- What are the characteristics of attentive students?

a- Taking notes

- b- Oral responses
- c- Asking questions
- d- Follow teacher's instructions
- e- Others, please specify

.....

.....

.....

9- How long can a student concentrate on task during lecture?

.....

.....

10- What do students focus on during the lecture?

.....

.....

**Section Three: Teacher's Methods of Teaching**

11- What is the strategy do you often use to rise your students' lecture comprehension?

- a- Warming up tasks
- b- Task engagement
- c- Providing them with examples
- d- Open discussions about the topic

e- Others, please specify

.....  
.....

12- The topic of the lecture usually makes student uncomfortable and they may be unwilling to pay attention. Do you see the lead-in (warm-up) activity as a solution to this issue?

Yes

No

If no, what do you suggest?

.....  
.....

13- If students choose what to pay attention to, their lecture comprehension will be improved.

a- Strongly agree

b- Agree

c- Disagree

d- Strongly disagree

**Thank you**



Background noise

Daydreaming

Lightning

Lack of motivation

Uncomfortable seats

Emotional disturbances

The aroma of food

Comprehension disability

Others:

.....

.....

6- Do you usually realize your attention breakdowns during lectures?

Yes

No

7- How long do these lapses generally last?

One minute

Two minutes

Between one and two minutes

More than two minutes

8- How often these lapses happen during lectures.

Very often

Often

Sometimes

Not often

9- Does it happen in all lectures?

Yes

No

10- Lectures that are hard to pay attention to:

Applied linguistics

Didactics

Research Methodology

Discourse Analysis

Psychology of Education

Acquisition Process

Written expression

Pragmatics

11- Being inattentive to these lectures is due to:

The timing of the lecture

Defective method of teaching

Defective voice of the teacher

Improper use of teaching aids

Lack of interest

Dislike of subject

Surprised by the subject content

Others, please specify:

.....  
.....

12- What are the appropriate strategies that could rebuild your attention after you witness a break?

.....  
.....

13- Are you familiar with the term Attentional Control?

Yes

No

If no, the fact that you neglect distractions and use strategies to keep yourself focused during the lecture is a result of your ability to guide your attention and this is known as attentional control.

14- How do you react to the distractions that are likely to happen in the same setting?

a- You pay attention to the distraction and you neglect the lecture

b- You try not to pay attention to the distraction and motivate yourself to focus on the lecture

15- When you next encounter a similar situation in a different lecture, you are more likely going to be able or unable to: tick (✓) the answer that is more relevant to your situation:

Strategies	Able	Unable
Inhibit the distractions and stop them		
Shift my attention to stimuli that are mostly relevant to the task		
Organize my priorities to achieve my goal		
Prevent stimuli unrelated to task		
Analyse or examine the incoming information or data		
Ask the teacher to repeat or re-explain if possible		
Update the incoming data and monitor it based on my background knowledge		
Recall information from an auditory lecture		
Stay focused for a long period as my classmates do		
Follow teacher's instructions		
Take notes of the important ideas the teacher is providing me		

## Appendix C

### Interview with a Psychiatrist

Dear psychologist, in order to achieve my master dissertation we would be grateful if you contribute in answering these questions that aims to seek information about your view concerning attention and its role in rising EFL learners' lecture comprehension.

1. Does attention effect the ability to learn?
2. What are the factors that affect students' attention?
3. What are the distractions that drive students' attention away from the lecture?
4. How do teachers affect student's attention?
5. Would you suggest some tips to better attention during lectures?
6. How can students improve their lecture comprehension?

Thank you very much.

### Responses of the Interview in Arabic

1- هل يؤثر التركيز على القدرة على التعلم؟

- نعم يؤثر التركيز على قدرة الطلبة في التعلم. فهو مهم عند استقبال المعلومة، فادا استقبل الطالب معلومة ما بدون أن يعيرها الانتباه الكافي، فان احتمال اكتساب هذه المعلومة ضئيل جدا.

2- العوامل التي تؤثر على انتباه الطالب داخل القسم:

لا شك أن المناخ الصفّي بمكوناته من مواد تعليمية وطرائق وأساليب تدريس، وواجبات تعليمية، ومظاهر مادية من أثاث ووسائل معينة يؤثر على انتباه الطلبة.

وبشكل عام يرجع تشتت الانتباه لدى الطالب إلى مجموعتين:

- المجموعة الأولى تتعلق بالطالب نفسه: وتضم العوامل الوراثية والعصبية والنفسية والإدراكية.

- المجموعة الثانية: وتتعلق بالبيئة الصفية وتضم طبيعة المادة التعليمية وطرائق التدريس والوسائل التعليمية غير المناسبة وكثرة المشتتات داخل القسم أو خارجه.

3- ما هي أسباب تشتت انتباه الطالب في الحصة؟

العوامل الداخلية:

أ- العوامل الفسيولوجية:

- الإرهاق والتعب الجسمي: الذي يؤثر بالسلب على جذب الانتباه نحو مثير أو منبه فالطالب المرهق جسميا لا يستطيع التركيز.

- الخلل الحادث في أجهزة الجسم: مثل الاضطرابات التي تحدث في الجهاز الهضمي والجهاز التنفسي أو التناسلي.

- عدم الانتظام في الغذاء أو سوء التغذية يفقد الفرد القدرة على التركيز لفترة طويلة.

- العقد النفسية والصراعات: مثل عقدة النقص أو الذنب أو الاضطهاد.

- القلق والأفكار الو سواسية وحدة الانفعالات.

- انشغال الفرد بأمور أخرى غير موضوع الانتباه.

2\_ العوامل الخارجية:

أ- العوامل الاجتماعية: تتمثل في المشكلات العائلية وعدم الاستقرار... إلخ كالنزاع المستمر بين الوالدين أو انفصال أحدهما، أو الصعوبات المالية.

ب- العوامل الفيزيائية:

والتي تتمثل في كل ما يحيط بالفرد من مؤثرات بيئية كضعف الإضاءة أو سوء توزيعها، سوء التهوية، ارتفاع درجة الحرارة والرطوبة، الضوضاء الصاخبة، كل هذه تؤثر على تشتت الانتباه وقتله.

4- كيف يؤثر الأستاذ على انتباه الطالب؟

ان لطبيعة المواد الدراسية وكثافتها دور لجذب انتباه الطلبة.

● طبيعة التفاعل داخل القسم: ويقصد به عموما هو عملية تنشيط واقع الطلبة في موقف معين القسم مع تحقيق توازن بين إرضاء حاجاتهم وتحقيق الأهداف البيداغوجية.

فالبينة الصفية التي تتصف باضطراب العلاقة البيداغوجية بين المدرس والطلبة، وبتسلط المدرس تؤثر على توعية انتباههم وتفاعلهم مع الموقف التعليمي -

- إن الإبقاء على انتباه الطلبة خلال النشاطات داخل القسم أمر صعب في ظل وجود أنماط سلوكية غير مرغوب فيها من قبل المعلم: مثل استخدام عبارات التهديد والوعيد، أو إهمال أسئلة الطلبة وعدم سماعها وعدم الإجابة عليها مع النقد البارح وغياب أساليب التشجيع والتعزيز.

كما أن إهمال المدرس الاتصال البصري أثناء الحديث مع الطالب والحفاظ على انتباه الطلبة أثناء إجابة البعض منهم -

● الانضباط داخل القسم: يعتبر مفهوم الانضباط هذا مختلف عن المفهوم الموجود في أذهان العديد من المدرسين لأن البعض منهم يدرك الانضباط على أنه التزام الطلبة بالصمت والهدوء.

- كما نشير إلى أن توزيع الطلبة العشوائي وما يصاحبه من الفوضى وعدم الانتظام يعد من أهم العوامل المساعدة في انشغال والهاء الطالب عن الدرس، كما أن موقع هذا الأخير داخل الحجرة الصفية والصفوف المزدحمة سينتج عنه فوضى أكثر وبالتالي تشتت الانتباه وضياح وقت المدرس. وعلى سبيل ذكر الاكتظاظ فإن لحجم (عدد) الطلبة في القسم الواحد تأثير على مدى تركيز انتباههم وبذلك يؤثر على تحصيلهم العلمي.

طرائق وأساليب التدريس: هي جزء من الأنشطة التعليمية، حيث يتم من خلالها نقل المادة العلمية إلى المتعلمين، وتتعدد طرق التدريس من أستاذ إلى آخر.

فلمعلم الذي لا يحسن اختيار الطريقة المناسبة للموقف التعليمي واعتماده المستمر على أسلوب الإلقاء في التدريس واحتكار الموقف التعليمي دون إتاحة الفرصة للطلبة للكلام وعدم مشاركة الطلبة في عملية التعليم ونقص التحضير الجيد للحصة يسبب للعديد منهم تشتت الانتباه.

5- هل تقترح بعض النصائح لتحسين التركيز خلال المحاضرات؟

يجب على الطالب انتقاء المثيرات ذات العلاقة بالتحصيل وإهمال المثيرات غير الملائمة. فالمثيرات التي يتعرض لها الطالب متعددة في القسم، فمثلا يفترض بالطالب أن يستمع لصوت المدرس وألا يستمع إلى أصوات السيارات في الخارج أو أصوات الطلاب الذين يشوشون أثناء الحصة. كما يفترض للطالب أن يرى الكلمات المكتوبة على الصبورة أو صفحة الكتاب وليس على لوحات الحائط.

6- كيف يمكن للطلاب أن يحسن من مهارة الفهم أثناء المحاضرة؟

ليستطيع الطالب تحسين فهمه لمحتوى الدرس عليه أولاً أن ركز وأن يحسن من مهارات تركيزه. وعليه أنا أقترح مهارات التركيز:

- التدريب على تركيز الانتباه للمثيرات البصرية مثل الألوان: تلوين الكلمات المهمة أو وضع خط تحتها.
- التدريب على تركيز الانتباه للمثيرات السمعية، مثل صوت الأستاذ، تسجيله وإعادة سماعه.

## Appendix D

### The Interview with a Psychiatrist in English

**Interviewer:** Does attention effect the ability to learn?

**Interviewee:** Yes, it does. Attention influences the ability to learn, students need to attend to the information first, so that they can grasp it.

**Interviewer:** What are the factors that affect students' attention?

**Interviewee:** In general, factors that adjust students' attention are classified to two main groups. The first one is related to the students themselves, their perception, and psychological conditions. The second one is related to students' learning atmosphere, classroom environment, techniques and aids of teaching, in additions to the different factors inside and outside the classroom.

**Interviewer:** What are the distractions that drive students' attention away from the lecture?

**Interviewee:** 1. Internal distractions: which include

- Physiological distractions
  - Physical tiredness may infers negatively students from paying attention.
  - Malnutrition affects students' attention for a long period.
- Psychological distractions:
  - Anxiety and obsessive ideas that affect students' thoughts and distract them from paying attention.

2. External distractions: they include social and physical factors

- Social factors
  - Family situation may affect and distract students' attention, like poverty and divorce, or the unstable parents' relationship.

- Physical factors

-Physical factors include all the surroundings of the student like a low or high lightning, temperature, and the background noise. All these elements disturb negatively in decreasing students' attention.

-Overcrowded classrooms and unorganized ones increase noise, which is a basic distraction for students' attention.

**Interviewer:** How do lecturers affect student's attention?

**Interviewee:** Lecturers affect their students' attention through the methods of teaching and their techniques.

Methods and techniques of teaching: they differ from a teacher to another. Some teachers use the same method in all their lectures and they bring almost no opportunity to their techniques. As an example, some teachers use lecturing in which they provide no chance for students to take part.

Interaction inside the classroom: learning atmosphere has a great impact on students' attention. Teacher's attitude and behaviour with his/ her students during the lecture is important to have their attention. The way a teacher makes visual contacts, and the way he/she perceives and answers their questions and concerns should be appropriated to motivate them and not to neglect them.

Teachers are required to vary their techniques of teaching and bring some changes to the lecture. They are required to use learners based pedagogy and increase interaction between their students, as well as preparing lessons.

**Interviewer:** Would you suggest some tips to better attention during lectures?

**Interviewee:** In order for students to pay attention and improve their lecture comprehension, I advise students to choose what to pay attention to. In other words, students are required to pay attention to stimuli related to the task or the lecture and

eliminate or execute unrelated stimuli. As an example, I assume that students must focus on their teacher's voice, and not to listen to the background noise, weather inside or outside the classroom. Focusing on what is written on the board or the handouts rather than what is written in tables or walls can assist students to exclude distractions and focus with the teacher.

**Interviewer:** How can students improve their lecture comprehension?

**Interviewee:** To increase comprehension, students have to attend to it first. I suggest some concentrating skills that can assist students to pay attention, so that they can comprehend:

Training to pay attention to visual stimuli: like colours, colouring key words in the handout can increase students' attention, and underlining can assist as well.

Training to pay attention to auditory stimuli: like the teacher's voice. Recording the lecture and listening to it at home increases comprehension and facilitates attention process.

## Résumé

Cette présente étude vise à décrire les effets du contrôle de l'attention sur la compréhension du cours chez les apprenants d'Anglais langue étrangère, car le contrôle de l'attention permet aux apprenants de guider leur attention et d'inhiber les distractions. Cette recherche adopte une méthode qualitative dans laquelle elle décrit la relation entre l'attention des étudiants et leur compréhension du cours. Quant à l'échantillon de l'étude, cinquante étudiants ont été choisis aléatoirement parmi 300 étudiants de première année master langue anglaise à l'université de Biskra durant l'année universitaire 2015/2016. Comme outils de recherche un questionnaire et un entretien ont été utilisés pour collecter les opinions et les données fournis par les étudiants, les enseignants et une psychologue concernant le sujet. L'analyse et la discussion des données ont surligné un certain nombre de découvertes. D'abord les étudiants sont exposés à un nombre massif de distractions, soit interne comme la motivation ou externe comme le bruit du fond. Ensuite, le manque de concentration chez les étudiants pourrait être consolidé par les stratégies d'instruction et de motivation de leurs enseignants pour se concentrer durant les cours. Enfin les étudiants pourraient se servir en utilisant les fonctions exécutives de leur contrôle de l'attention, comme le fait d'inhiber les distractions et de guider leur attention aux stimuli appropriés et mettre à jour les données en concordance avec leurs connaissances de base. Cette recherche pourrait être développée en enquête étendue concernant l'impact du contrôle de l'attention sur la réalisation des étudiants durant les examens.