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The Impact of Memorization and Motivation on Pupils'Academic Achievement: The Case of Third Year Pupils at Maliha Hamidou, Tlemcen and Bou-Azza Miloud, Maghnia Secondary Schools

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Statement of originally

We hereby declare that this submission is our own work and does not contain any material previously published material or already published material written by others qualification to accept another degree or diploma from a university or other institution mechanism.

We also guarantee that the current work does not contain plagiarism and is the result of our own investigation unless otherwise stated.

Ms. Benguerfi Chahinez and Mekidich Hadjer

Dedication

This dissertation is dedicated to my beloved parents, thank you for the unconditional love and support you have always given to me.

To the light of my eyes: Abd- el Rahman, Nour El Imen, Sara and Amara. To my lovely aunties: Fatima, Khadidja, Amina, Souad, Nadia, Hadjira. To my darling: Nawal, Souad, Fatima, Safia, Khadidja.

And a special thanks to those who deserves to be called my friends: Rounachi Maghnia, Kafnemer Djihan, Boukarrouch Rajae, Touil Maria.

Mekidich Hadjer

This dissertation is dedicated to the ones who I love most in this world:

My wonderful parents Awatif and Rachid who actually scarified for my joy, have raised me and support me to be the person I am today.

To my lovely sisters: Hadjira, Fatiha, Assia and my dear sister's friend Nadia

To my handsome brother Mohammed

And to my aunt Souad, may Allah have mercy on her

Thank you for all the unconditional love and guidance that you have always given to me May Allah protect you always

Benguerfi Chahinez

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Abstract

In recent years, researchers have shown renewed interest in "psychology". In the field of education in particular, many studies have been conducted to analyze how learning and performance are influenced by motivational and cognitive factors related to personal and/or situational interests. Education and psychology arecorrelated, psychology which gives insight and information, about the pupil mentality, while education executes and acts in the specific direction to get the goals. Psychology is a broader field and education is devoted to applying knowledge of psychology to practical teaching and learning situations. In this paper, results from empirical research will be presented besides theoretical considerations concerning the memory and motivation. The main objective of this research is to investigate the importance of memory and motivation in the achievement of third year pupils and the possible problems related with the two terms. Also the significance of the research is to appear how memorization and motivation effect pupils achievements and the causes behind their failure, for this purpose, a case study was conducted as a research field work. The data collected from observation, interview, and questionnaire, the implication of tools were analysed both quantitatively and qualitatively. The main results obtained revealed that psychological aspects play an important role and have a significant impact on pupil's learning, especially for Third year pupils, wether negatively and positively. In addition the findings proved that the cognitive processes such as memory and motivation are strongly linked to pupils education, because these psychological aspects help both teachers and pupils to better understand each individual's mental, emotions and behaviors in order to improve their performance and their academic achievements. This is why, it is strongly believed that psychology is an important and more needed in education. At the end of the study, there were suggestions and recommendations for integrating more support and some solutions like what teachers and parents should do to help their children, and on the other hand, what should students do to improve their performance.

List of Acronyms and abbreviations

EQ: Emotional Intelligence EI: Cognitive Intelligence HPA: The Hypothalamus Pituitary Adrenal Axis BAC: Baccalaureate Exam SM: Sensory Memory STM: Short- Term Memory LTM: Long- Term Memory EM: Explicit Memory CBA: Competency Based Approach

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General Introduction

GENERAL INTRODUCTION

Through the third millennium, the interest in the human mind has increased. This is reflected in the increasing number of studies related to cognitive psychology; which is concerned with the internal processes involved in making sense of the environment, and deciding what action might be appropriate. In the early 20s cognitive psychology was a broad field involving memory, cognition, motivation, attention, pattern recognition, consciousness, neuroscience, knowledge representation, cognitive development, language, reasoning, and humans and artificial intelligence. But contemplation about the source of knowledge, how people think, solve problems, and perceive their world, is as old as human history and has always held a lofty place in the thinking of philosophers, theologians, mystics, and scientists. Cognitive psychologists, was and still interested in the science of learning which takes the fundamental components of cognitive processes; how people perceive, learn, attend to, and remember information and develop teaching and learning strategies that can be tested using scientific methods.

Today, cognitive psychology has become a part of education as a discipline of educational psychology. The use of psychology in the classroom has always been an integral part of education, helping teachers to refine and develop teaching methods that create learning - rich classrooms; in addition to use measurements and assessments correctly, to better gauge where pupils are in their learning. And on the other hand, it helps pupils know their most of the problems encountered in their tasks and exams to improve their performance. The education of pupils goes through different stages. At each stage there are some difficulties or problems related to psychological and scientific aspects, such as memory and motivation, which play a vital role in their learning , exams, levels and achievements. The following research proposal was designed to discuss and examine improvements of memory and motivation in the achievements of Third year pupils.

The present study aims to highlight the importance of pupils' memory and motivation during their final year of high school (Baccalaureate degree). This research may help to understand the impact of these two psychological terms,

1

Memory (memorization) and motivation, on pupils' individual learning. We initially, present the terminology used in affective psych-science studies, describing the role of memory and motivation in learning, and providing an overview of both terms. This study is to examine the psychological aspects of pupil learning and behavior. Such research can provide important insights into many aspects of education, as studying pupil learning and behavior is critical to improving pupils' achievements.

The objective behind of this study is to demonstrate the importance of psychological part (memory and motivation) for Third year pupils; and to illustrate the reasons why some pupils end up failing in the final exam, despite their superiority during the school years. The study will attempt to provide explanations for these reasons. The purpose of the proposed study is to provide a general view about the possible problems that face those pupils.

The dissertation takes as research questions the following:

- what are the most important cognitive difficulties faced by third year pupils in their academic performance?
- 2) How do memory and motivation affect pupils'academic achievement?

On th most e basis of these research questions, we will try to examine and prove these hypotheses:

- Third year pupils may affect by some psychological aspects ,most notably memory and motivation.
- Third year pupils may faced some problems and difficulties that can effect their academic achievements.

The research methodology and tools which help us conduct such investigation and answer the research questions mentioned above will be descriptive and analytic method. It will be based on the data collection from third pupils interview , classroom observation and questionnaire for teachers in charge of different subjects that organised in two high schools: Maliha Hamidou (Tlemcen, Algeria) and Bou-Azza Miloud (Maghnia, Tlemcen, Algeria).

The present dissertation consists of two chapters. The first chapter, highlights the main elements related to the whole topic of research, starting from focusing on the important psychological concepts (memory, motivation) and defining the elements related to it, and after that dealing with each concept. The second chapter, start with a description of the situation or the context where this study is undertaken. Then moving to the data collected through pupils interview and classroom observation; in addition to teachers questionnaire. Finally, the chapter provides some suggestions and recommendations of the study.

Chapter one Literature Review

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1.1 Introduction

Today's education system is very complex. There is no single learning approach that works for everyone. For this reason, psychologists working in education focus on identifying learning problems, methods and providing some explanation to better understand how people absorb and retain knowledge. In addition, to improve the learning process and promote the educational success of all students. These psychologists also study the social, emotional and cognitive processes involved in learning and apply their findings to enhance the learning process. In the following research, we present two important aspects that affect people in general, and learners in particular: memory (memorization) and motivation.

This chapter deals with background of cognitive psychology as whole field, then introduce the two main components of this psychological field memory and motivation. Furthermore, the chapter provides an overview about the two terms(definitions, types, variables... and finally the chapter also presents the possible problems related to each term and how these two terms affect pupils in their learning and their academic achievement.

1.2 The Emotional Intelligence

It is commonly agreed that being over emotional whether positively or negatively is never a good thing, pupils in all ages and levels are suffering from the inability of controlling their internal feelings and emotions they receive from their external environment, this issue manipulates pupils brains and can make huge damage not only by affecting their psychological health but also their cognitive system and reduce their memory effectiveness, as soon as they turns to be unfonctional in class and academically unproductive, in this context scholars and educationalists emphasized that pupils psychological situation can impact their academic performance and educational achievements, Sceifert and Rosemary (2009:50) maintains that "Social development refers to the long term changes in relationships and interactions involving self, peer and family which consists receiving both positive and negative emotions, these emotional changes effects the cognitive development", Therefore being emotionally intelligent is a crucial skill to attain the academic intelligence.

1.2.1 The Emotional Intelligence and Cognitive Psychology

Intelligence signifies the individual capacity of thinking and solving problems effectively, it is about feeling and acting wisely according to the features of the surrounded environment in order to achieve a particular objective. Traditionally intelligence and issues of memory were related to the field of Cognitive Psychology which focuses on studying how humans understand, learn, recall information, think and solve problems. Adequately, in this vein Goleman (1996:43)noted "With the coming of 'the cognitive revolution' the focus of psychological science turned to how the mind registers and stores information and the nature of intelligence, but emotions were still off limits". In fact cognitive psychology becomes a reliable item in education by taking the role of the leading philosophy in the field, Therefore scholars and researchers are depending on this science to find solutions for the mental difficulties pupils face such as: lack of concentration, mental block, and weakness of memory and so on.

Cognitive psychologists believes that human's behavior is influenced by cognition which has a major impact in shaping human's personality and his way of thinking and functioning, However the fact that cognition and emotion are interrelated aspects and are effecting each other, these facts influence researchers to recognize the importance of the emotional aspect on human's cognitive performance, the emergence of the field of the Emotional Intelligence came as a complementary study of cognitive psychology. In other words there is no separation of mind and emotion, emotion, thinking and learning are all linked.

1.2.2 Definition of Emotional Intelligence

Emotional Intelligence or EQ is new concept in human psychology that indicates the individual's capacity in controlling and managing the internal feelings and being rational in dealing with the external emotions that is received from the outside environment. It about interpreting and comprehending our emotions to better

appreciate ourselves and the others to react wisely, Thus EQ is the key to both personal and professional success.

The term of Emotional Intelligence was first used by Salovey and Mayer (1990:190) who described it as "The subset of social intelligence that involves the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions".

Goleman (1996:15) introduce EQ as follow: "Is the person's ability to manage his feelings so that those feelings are expressed appropriately and effectively".

Emotional Intelligence is a different kind of intelligence, It's about being heart smart not just mind smart, hence EQ matters just like the intellectual competency. So when it's comes to success, Emotional intelligence serves you in creating strong relationships, succeed in your educational and professional career.

1.2.3 The three main aspects of the emotional intelligence

It is known that cognitive intelligence IQ is a given genetic that cannot be changed by life experience and our life destiny is based on it, This notion ignores the most challenging question people ask which is: What can we change to get a better life?

Goleman(1996:37) argues this questioning in his famous book "The Emotional Intelligence", According to him "When people of high IQ flounder and those of modest IQ do surprisingly well I would argue that the difference quiet often lies in the abilities called here emotional intelligence which includes self awareness and regulation, and the ability to motivate oneself". Based on this psycho scientific philosophy, people with high IQ can fail and face obstacles not only in their personal life but also in their academic and professional career, in the other side people with Medium IQ can achieve success and accomplish any challenge they may face, The paradox between both cases relies on the emotional intelligence which can be achieved through the following three main components:

1.2.3.1 Self awareness

"It might seems at the first glance that our feelings are obvious, more thoughtful reflection reminds us of times we have been all too oblivious to what we really felt about something, or awoke to these feelings late in the game" (1996:49), These expressive words by Goleman spots the light on an ancient wise Greek philosophy "No one can understand you like you", Therefore when we have a better understanding of ourselves we are empowered to make changes and build our strengths.

The term self awareness refers to ongoing attention to one's internal state, is a process of self reflection when awareness mind observes and investigates our actions and reactions including our emotions.

Pupils in that case, by knowing their learning styles can help them a lot to select the best strategy of learning and method they can opt for, As maintained by most of educators there is no one size fits all when it's comes to how pupils comprehend information, each individual has his own special way of acquiring knowledge, according to Hawkar (2014:242) "Learning styles play a significant role in the lives of learners. When pupils recognize their own learning style they will be able to integrate it into their learning process", Hence if pupils get know their learning styles they will academically perform well, basically there is three fundamental styles of learning according to the sensory system of human (Auditory/Visual/Tactile).

a) Auditory: it belongs to learners who prefer listening to the information, this kind of learners understands better through vocal materials such as: Oral presentations, vocal clips, listening to conversations....etc.

b) **Visual:** visual learners learn better when they visualize the information through pictures, diagrams, graphs....etc.

c)Tactile: Or kinesthetic learners are the type of learners who tend to work physically not just mentally in class, these learners acquire better when they use all their senses.

1.2.3.2 Self regulation

"Self mastery is about being able to withstand the emotional storms that the buffeting of fortune brings rather than being "passion's slave" Goleman (1996:58), the nature of human being is related to acting spontaneously without pre-thinking, this impulsive behavior can create gap between individuals and effects human's mental clarity and emotional well-being, Self regulation signifies the capacity of remaining calm and monitoring ourselves by managing our emotions and react appropriately with considering self and others interests.

1.2.3.3 The internal motivation:

"Motivation is what pushes us to achieve our goals, feel more fulfilled and improved overall quality of life"(1996:87) this identification of motivation presented by Goleman emphasized the important role of motivation in the creation of any success, whereas the best kind of motivation we can have is the kind that's comes from the inside of us.

The internal motivation is the ability to make yourself work with little to no pressure from others, is about being able to transform the negative comments and energy that comes from the surrounding environment to a source of motivation and optimism, "The internal motivation like hope means having a strong expectations that in general things will turn out all right in life, despite setbacks and first rations, from the standpoint of emotional intelligence, Internal motivation is an attitude that buffers people against feeling into apathy, hopelessness or depression in the face of though going" Goleman (1996:87).

1.2.4 The Emotional Intelligence affects pupils' cognitive performance

It is assumed that cognition and emotion are two interrelated aspects and we can't ignores their influence in our performance in our daily activities especially in our academic tasks, Mayer and Salovey (1997:31) explains the relationship that gathers both emotion and cognition in the following simple quotation " EI is the ability to access and generate feelings when they facilitate thought, the ability to understand

emotion and emotional knowledge, and the ability to regulate emotions to promote emotional and intellectual growth", Thus pupils aren't fully aware of the crucial role the emotional intelligence plays in managing and preparing their brains to perform adequately in any cognitive task, hence being emotionally intelligent guides pupils to reinforce their capacities in thinking smartly and wisely.

Therefore, no matter how much a pupil is brilliant academically but if he can't control his impulsivity in emotions he will not be able to give all what he got cognitively and achieve success effectively. In the other hand a pupil with medium cognitive abilities and high emotional intelligence can achieve success and accomplish any challenge he may face in his life.

1.3 Memory and motivation in cognitive psychology

Memory and motivation are considered two key processes in cognitive psychology, and these two concepts are essential for understanding each person's thoughts and behaviors. Cognitive psychology therefore conducts a more direct study of cognitive processes and attempts to understand what happens in human brain during the learning process.

1.3.1 What Is Cognitive Psychology

The word "cognition" comes from the Latin word "cognoscere", meaning "to know" or "to recognize". Therefore, cognition includes activities and processes concerned with the acquisition, storage, retrieval, and processing of knowledge. In other words, it can include processes that help us perceive, notice, remember, think, classify, reason, and make decisions. Cognitive psychology, as the name implies, is a branch of psychology dealing with the cognitive psychological processes.

The term "cognitive psychology" was first used in 1967 by American psychologist Ulric Neisser in his book Cognitive Psychology. According to Neisser (1967, 04), cognition involves "all processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used." Neisser also suggested that given such a broad and sweeping definition, cognition was involved in anything and everything that people do.

Cognitive psychology is the branch of psychology that explores the operation of mental processes related to perceiving, attending, thinking, language, and memory, mainly through inferences from behavior. It looks at how we process information we receive and how the treatment of this information leads to our responses. In other words, cognitive psychology is interested in what is happening within our minds that links stimulus (input) and response (output).

Broad Definition: Empirical research of mental events and knowledge, recognition of objects, remembering of names, how to hold ideas, understanding of sentences, and solving problems.

Scientific Definition: An empirical investigation of mental processes helps us recognize, remember, think, and act on these processes. Cognitive psychology is central to the quest for psychologists to understand behavior as well as focus on everything that happens in everyday life.

Sternberg (1999) defined Cognitive psychology as "that which deals with how people perceive, learn, remember, and think about information." In 2005, Solso gave another definition of Cognitive psychology as the study of processes underlying mental events. In general, Cognitive psychology can thus be defines as that branch of psychology that is concerned with how people acquire, store, transform, use and communicate language. The cognitive psychologists study the various cognitive processes that make up this branch. These processes include a process that focuses on attention, or stimulus and perception; the process by which we interpret sensory information. Pattern recognition, the process of classifying stimuli into known categories. And memory, the process of making information stored for later retrieval, etc.

1.3.2Memory

The memory generally serves to store and recall information. The concept and term of memory can be interpreted according to the field or aspect in which it is used. In physiological and neurological sciences, it can be defined as the ability to receive, store, and maintain information and expertise to be recalled and restored when needed.

In Merriam Webster Dictionary: a)"The power or process of reproducing or recalling what has been learned and retained especially through associative mechanisms." Another definition to Merriam Webster Dictionary: b)"The store of things learned and retained from an organism's activity or experience as evidenced by modification of structure or behavior or by recall and recognition."

1.3.2.1What is Memory in Psychology

Memory is a psychological process that goes beyond remembering important information. Like any senses, including the sense of consciousness; it is a conceptual process that is influenced by our beliefs, anticipations, expectations, and fears.

In psychology, memory is defined as the possibility by which behaviors are adapted to human experiences. It can be more clearly defined as a cognitive mental process that stores and saves information, experiences and different situations experienced by man and learns.

The memory function restores the required information after a long or short period of time. It is important to note that the concept of memory is more meaningful than the concept of remembering. According to different psychologists: "Memory is the process of maintaining information overtime." (Marlin, 2005). In another definition of memory according to (Steinberg 1999) :"Memory is the means by which we draw on our past experiences in order to use this information in the present."

1.3.2.2 Three main processes of Memory

Our memory system works in three separate processes: encoding, storage, and retrieve.

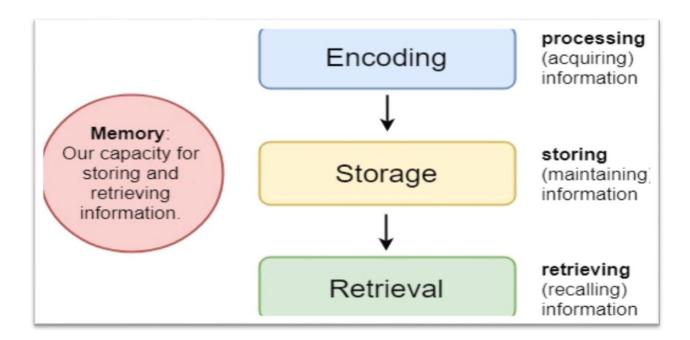


Figure 1.1:Diagram of three stages of memory processing(from Seneca learning 2018)

(A diagram shows three boxes, placed in a row from left to right respectively titled "Encoding", "Storing" and "Retrieval". One right facing arrow connects "Encoding" to" Storage" and another connects "Storage" to "Retrieval").

1. Encoding (or registration): The process of receiving, processing, and combining information. Encoding allows information from the outside world to reach our senses in the forms of chemical and physical stimuli. In this first stage we must change the information so that we may put the memory into the encoding process. There are 3 types of factors that can influence encoding efficiency:

a) Content factors: Related to the type of material to be encoded.

b) Environmental factors: Related to the conditions under which the encoding takes place.

c) Subjective factors: Related to variables in effect when encoding takes place.

2. Storage: The creation of a permanent record of the encoded information. Storage is the second memory stage or process in which we maintain information over periods of time.

3. Retrieval (or recall, or recognition):The calling back of stored information in response to some cue for use in a process or activity. The third process is the retrieval of information that we have stored. We must locate it and return it to our consciousness. Some retrieval attempts may be effortless due to the type of information.

1.3.2.3 How Do Memories Worked

Theories of memory generally consider both the architecture of the memory system and the processes operating within that structure. Architecture refers to the way in which the memory system is organized and processes refer to the activities occurring within the memory system. Learning and memory involve a series of stages. Processes occurring during the presentation of the learning material are known as "encoding" and involve many of the processes involved in perception. This is the first stage, as a result of encoding, some information is stored within the memory system. Thus, storage is the second stage. The third (and final) stage is retrieval, which involves recovering or extracting stored information from the memory system.

1. Memory Encoding (step1)

Memory encoding allows information to be transformed into structures that are

stored in the brain indefinitely. Once encoded, it can be retrieved from short-term or long-term memory. At a very basic level, in-memory encoding is like hitting «save» on a computer file. Once the file is saved, it can be retrieved as long as the hard drive is not damaged. «Recall» refers to retrieving previously encoded information.

The encoding process begins with perception, which is the identification, organization, and interpretation of any sensory information in order to understand it in the context of a specific environment. Stimuli are perceived by the senses, and the associated signals travel to the thalamus of the human brain, where they are synthesized as an experience.

The hippocampus then analyzes the experience and decides whether long-term memory is worth pursuing. It is encoded using chemicals and electrical impulses in the brain. Neural pathways or connections between neurons (brain cells) are actually formed or strengthened through a process called long-term potentiation, which alters the flow of information in the brain. In other words, when a person experiences new events or feelings, the brain «rewires» itself, storing these new experiences in memory. In encoding there are four primary types: visual, acoustic, elaborative, and semantic.

2. Memory Storage (step2)

Memory storage allows us to hold onto information for a very long duration of time even a lifetime. Memories are not stored as exact copies of experiences; instead, they are modified and reconstructed during retrieval and recall. The storage of memories occurs through an encoding process, whether through short-term or long-term memory. In the process of memory encoding, information is filtered and modified for storage in short-term memory. Information in short term memory keeps deteriorating; however, if information is deemed important or useful, it is transferred to long-term memory for longer storage. Since long-term memories must be retained indefinitely, they are stored or merged in a way that optimizes other memory spaces. Therefore, long term memory can hold more information than short-term memory, but it may not be immediately available. The way long-term memories are stored is similar to a digital compression. This means that information is filed in a way that takes up the least amount of space, but in the process, details of the memory may be lost and not easily recovered. Because of this consolidation process, memories are more accurate the sooner they are retrieved after being stored. As the retention interval between encoding and retrieval of the memory lengthens, the accuracy of the memory decreases.

3. Memory Retrieval (step3):

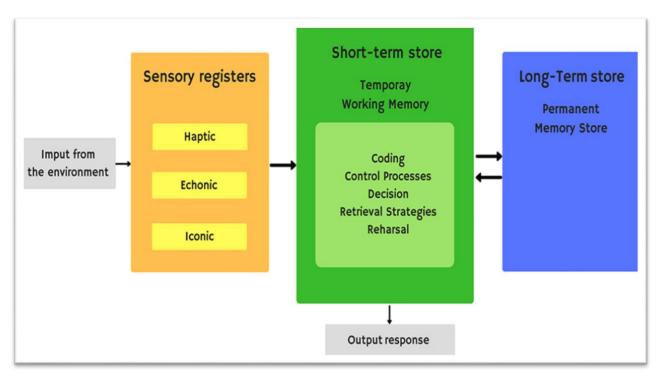
Memory retrieval, including recall and recognition, is the process of remembering information stored in long-term memory.

Memory retrieval is the process of remembering information stored in long-term memory. Some theorists believe that there are three types of memory stores: sensory memory, long-term memory (LTM), and short-term memory (STM). Only data

processed by the STM and encoded in the LTM can later be retrieved. Overall, the mechanisms of memory are not fully understood. However, there are many theories about memory retrieval. There are two main types of memory retrieval: recall and recognition. In recall, the information must be retrieved from memories. In recognition, the presentation of a familiar outside stimulus provides a cue that the information has been seen before. A cue might be an object or a scene—any stimulus that reminds a person of something related. Recall may be assisted when retrieval cues are presented that enable the subject to quickly access the information in memory.

1.3.3 Types of Memory

The three major classifications of memory that the scientific community deals with todayare as follows: sensory memory, short-term memory.



(Figure 1.2: Atkinson and Shiffrin's Modal Model 1968)

1.3.3.1 Sensory Memory(SM);

Sensory memory is a very short-lived memory that allows people to retain the impression of sensory information after the original stimulus has disappeared. It is

often considered first-level memory. The duration of sensory memory was first studied in the 1960s by psychologist George Sperling.

Sensory memory allows an individual to remember an input in great detail but for only a few milliseconds. Sensory memory allows individuals to retain impressions of sensory information shortly after the original stimulus has ceased. It enables individuals to recall a great deal of sensory detail about complex stimuli immediately after their presentation. Sensory memory is an automatic response beyond cognitive control. The information represented in this type of memory is «raw data,» which provides a snapshot of a person's entire sensory experience. Information from sensory memory has the shortest retention times, ranging from a few milliseconds to five seconds. It is stored just long enough to transfer to short-term memory (working memory).Incoming information in sensory memory is not manipulated because it is rapidly transferred to working memory. During this transfer, the amount of information is greatly reduced because the capacity of working memory is insufficient to process all the input from our sensory organs. There is a subtype of sensory memory for each of the five main senses (Touch, taste, sight, hearing and smell), However, only three of these types are widely studied: ehoice memory, iconic memory and haptic memory.

Iconic memory retains information that is gathered through sight, echoic memory retains information gathered through auditory stimuli and haptic memory retains data acquired through touch.

1.3.3.2 Short-term Memory(STM):

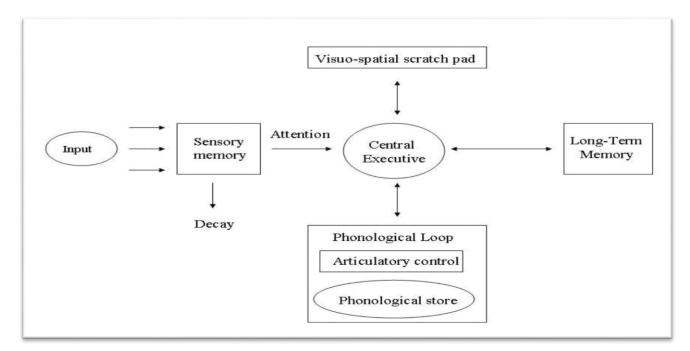
Short-term memory (STM), which includes working memory, stores information for a brief period of recall for things that happened recently.

Short-term memory is the ability to keep small amounts of information in an active, readily available state for a short period of time. It is separate from our long-term memory, which stores a lot of information that we can retrieve later. Unlike sensory memory, it can be stored temporarily. How long this storage lasts depends on the individual's conscious effort; without practice or active maintenance, short-term memory duration is thought to be on the order of seconds. Short term memory acts as a scratch pad for temporary information retrieval. For example, to understand this

sentence, you need to remember the beginning of the sentence as you read the rest. Short-term memory declines rapidly and has limited capacity. Psychologist George Miller suggests that human short-term memory spans about seven items plus or minus two. Recent research has shown that this number is roughly accurate for college students to memorize lists of numbers, but memory spans vary by test population and materials used.

For example, the ability to recall words in sequence depends on many properties of those words: fewer words can be remembered when words are spoken longer (this is called the word length effect) or when their sounds are similar to each other (this is called a word long effect). Called the phonological similarity effect). More words can be retrieved if the word is very familiar or occurs frequently in the language. Chunked information can also increase short-term memory capacity. For example, a hyphenated phone number is easier to remember than a long number because it is divided into three parts instead of ten digits.

Rehearsal is the process of retaining information in short-term memory by repeating it in your mind. As information is re-entered into short-term memory each time it is repeated, the information is retained for an additional 10 to 20 seconds, the average



short-term memory retention time. Distraction from samples often leads to short-term

(Figure 1.3 : The working Memory Model: Baddeley-Hitch 1974)

memory impairment. This explains the desire to complete tasks stored in short-term memory as quickly as possible. On the other hand, the term «working memory» is often used interchangeably with «short-term memory,» which is related to but actually separate from short-term memory. It keeps temporary data in mind, where to operate on it. Baddeley and Hitch's 1974 model of working memory is the most widely accepted theory of working memory today. According to Baddeley, working memory has a phonological loop to hold linguistic data, a visuospatial notebook to control visual data, and a central actuator to distribute attention among them.

The process of transferring information from short-term memory to long-term memory involves encoding and integrating the information. This is a function of time. That is, the longer the memory stays in short-term memory, the more likely it is to be placed in long-term memory. The meaning and emotional content of an item can play a greater role in the preservation of long-term memory.

1.3.3.3 Long Term Memory (LTM)

Long-term memory is used to store information over a long period of time, which can range from hours to a lifetime.

If we want to remember something tomorrow, we need to consolidate it into long-term memory today. Long-term memory is the final, semi-permanent level of memory. Unlike sensory and short-term memory, long-term memory has theoretically infinite capacity, and information can remain there indefinitely. Long-term memory is also known as reference memory because a person needs to refer to information in long-term memory for almostLong-term memory can be further subdivided into two categories: explicit memory and implicit memory.

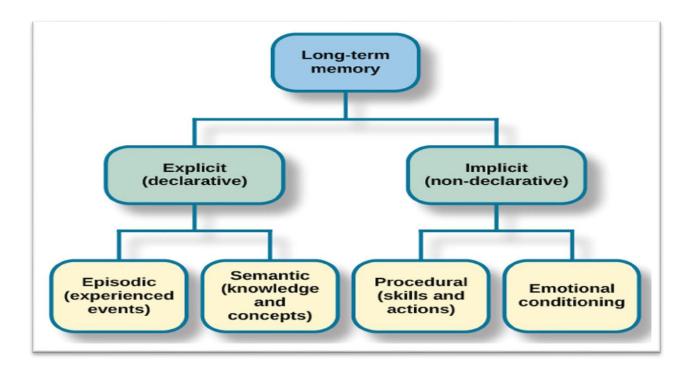


Figure 1.4(Tulving's long term memory Model 1972,1983)

A diagram consists of three rows of boxes . The box in the top row is labeled 'long – term memory" a line from the box separates into two lines leading to two boxes on the second row , labeled « explicit (declarative) and implicit (non – declarative) . « From each of the second row boxes , split and lead to two additional boxes . From the "explicit" box are two boxes labeled "episodic (experienced events)" and "semantic (knowledge and concepts)" From the "implicit" box are two boxes labeled "procedural (skills and actions)" and "emotional conditioning.") this diagram came from (McLeod, S.A.(2010, December 14) long term memory. Simply psychology).

1) Explicit Memory (EM): Explicit memory, also known as conscious or declarative memory, involves remembering facts, concepts, and events that require conscious retrieval of information. In other words, the person must actively consider retrieving information from memory. This type of information is stored and retrieved explicitly - hence the name. Explicit memory can be further divided into semantic memory, which involves factual and episodic memory, mainly involving personal or autobiographical

information. (The concept of episodic memory was developed by Endel Tulving in the early 70s (Tulving, 1972, 1983).

Semantic memory and episodic memory are closely related. Fact-related memory can be enhanced by fact-related episodic memory and vice versa. For example, the answer to the fact question «Are all apples red?» Can be remembered when you see someone eating a green apple. Similarly, semantic memory on a particular topic, such as soccer, can contribute to more detailed episodic memory of a particular personal event, like watching a soccer match. Those who know little about the rules of soccer will remember the different movements and results of the game in much more detail than a soccer expert.

3) Implicit Memory: In contrast to explicit (conscious) memory, implicit (also called «unconscious» or «procedural» memory processes actions. These movements have evolved over time. Motor skills are an example of implicit memory. You learn the basics of a sport, practice them over and over, and they naturally blend into the game. Rehearsing for a dance or music performance is another example of implicit memory. Everyday examples include remembering how to tie your shoes, drive a car or ride a bicycle. These memories are accessed unknowingly they automatically translate into actions without us even realizing it. As such, they are often difficult to teach or explain to others. Implicit memories differ from the semantic scripts described above because they are usually actions involving movement and motor coordination, whereas scripts tend to emphasize social norms or behaviors.

1.4 What is cognitive motivation?

Human being is characterized by shaping their thoughts according to their emotional and motivational sense, Indirectly and instinctively people tend to orients themselves toward success or failure unconsciously by letting their cogitation influence and made under their emotional conditions, in this context psychology pioneers conducted several studies in which they gathers between cognition and motivation.

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1.4.1Cognitive Motivation

Cognitive motivation refers to the influence of motives on various types of thought processes such as memory, thinking, resolving problems...etc, Motivation is considers as cognitive force and mental spiritual nutrition, Therefore psychologists suggests two types of motivation by describing whether it was arises from outside (Extrinsic) or inside (Intrinsic) an individual.

Scholars found out that each type of motivation has a different effect on human's behavior and pursuit of goals, "Emotions in achievement setting are also closely related to one's motivational approach to learning, particularly Intrinsic and Extrinsic motivation, whereas intrinsic motivation implies (Learning for it's own sake), Extrinsic motivation implies learning to achieve desired consequences or avoid undesired consequences" C, Hall and Goetz (2013:30), So to better comprehend the influence of the intrinsic and extrinsic motivation it will help to tackle how each type works:

1)Extrinsic Motivation: Is when a person is motivated to perform an activity in order to earn something or avoid sanction, According to Saracho (2019:50) " Extrinsic motivation alludes to attaining a goal for the purpose of an external factor like reward, avoidance of punishment, pressure from others...etc".

In the case of pupils, teachers and parents are the main sources of the extrinsic motivation, for example they can use it as tool to push pupils to study a module they don't like, It's worth to mention that both should know how and when to use it because rewarding pupils for something they already like and interested to it can lower their performance in it.

b) Intrinsic Motivation: Is that kind of motivation that exists inside the individual, it's an inner spontaneous desire that makes the person encouraged to do a particular task, According to Ryan and Deci (2000:56) " The intrinsic motivation is defined as the doing of an activity for its inherent satisfaction rather than for some separable consequence, when intrinsically motivated, a person is moved to act for the fun or challenge entailed rather than because of external products, pressure or reward".

Pupils who are intrinsically motivated tend to perform academically with passion, Learning with passion drives to lasting learning and that the supreme goal of any educational system, Some scholars believes that if teachers knew how to use the extrinsic motivation appropriately, They will automatically plants the intrinsic motivation inside their pupils.

1.4.2 How pupils orient their goals

The fight or flight response theory draw an analogy to how pupils orients their goals, Therefore it discuss how humans behave and react against something unexpected like an attack, obstacle...etc, The theory attempt to explain that there is two kinds of responses based on how the individual cognate, Thus according to Elfiky (2007:200) "When the individual uses all his emotional energies and the power of his Adrenaline which will be spread all over his body and make him feel in a total emergency during his dealing with the challenges of his daily life that do not need all this crisis and impulsivity", The same thing happens with The Performance Goal Orientation followers who let their emotional brain controls their cogitation, Hence pupils of this orientation focuses more on (I CANT) and they have low expectations on themselves , If they failed they say we are stupid and if they succeed they attributes their success to the luck, They see ability as fixed and never can be changed to the better.

Contrastingly, The fighters believes that they should fight until they reach their desires no matter how much it costs them time and efforts, The same thing applied on The Mastery Goal Orientation followers who are named " the lovers of learning" like some educational psychologists prefer to call them, Mango (2012:20) "Mastery orientation one of the most relevant psychological concepts related to "love of learning", is a motivational orientation to become competent and to maintain this competence, Thus a person who possess this mastery orientation has goals that are focused on to improving one's competence, developing new skills, learning and mastering the task according to self-set standards, trying to accomplish something challenging and trying to gain understanding or insight", In one word pupils of this orientation see success as product of high ability and failure as product of low efforts, in this orientation pupils approve that ability is flexible i,e they believes that they can improve their capacities by try more and work harder.

1.5 The psychological variables of pupils

The term psychological variable has a broad meaning, It consists two words, Psychological refers to an affection arise in the mind related to the mental and emotional state of a person, Whereas Variable refers to a changeable factor that can be measured, According to Springer website (2013) « Psychological variable indicates a large range of factors relating to an individual's psychological state and social environment and potentially have either positive and negative consequences for health and behavioral outcomes ».

As it is known, Pupils differs from each other not only in their way of thinking but also in the way they interprets what their cognitive and emotional system recieve from the outside environment, Scholars and researchers agreed that there is three fixed fundamental psychological variables of pupils that plays a crucial role in shaping pupils mentality and cognitive behavioral performance, these variables are (Motivation, Stress, Anxiety).

From the behaviorist perspective, motivation is « quite simply the anticipation of reward » (Brown 2000 :160), The cognitivists view motivation are being more related to « the choices people make as to what experiences or goals they will approach or avoid, and the degree of effort they exert in that respect » Keller(1983 :389). However, the constructivist's definition of motivation places « further emphasis on social contexts as well as the individual's decisions » (Brown). Despite the differences in all the aforementioned definitions of the concept of motivation as viewed by the three schools of thought, the idea of 'Need' is emphasized, in other words « the fulfillment of needs is rewarding, requires choices and in many cases must be interpreted in a social contexts » (Brown 2000: 390).

Thence motivation is a dependent variable that stimulates, guides and facilitates learning, It is mandatory component that should be involved in any teaching-learning process, Basically pupil motivation may be sourced internally or externally, The internal motivation is about what the pupil like to do, It can be for example an enjoyable task the pupils loves to do that spur them up, In psychological standpoint the internal motivation centers on self determination and willingness to bettering self's academic performance, While the external motivation cannot be owned if its not has been provided by others, As Zhao (2012:101) maintained « Not all activities are sufficiently novel challenging or aesthetically pleasing to be intrinsically motivating » , Therefore the external motivation is what pushes pupils to study, its those external factors that stimulates them to evaluate their academic level, These factors are (Family motives, Teacher-pupil relationship, Peer relationships).

Arguably, Stress is the independent variable that effects the dependent variable i,e (motivation), Hence stress can be defined as a random uncomfortable feeling that causes physical and emotional tensity, « In the behavioral science stress is regarded as the perception of threat with resulting anxiety, discomfort, emotional tension and difficulty in adjustment » Fink (2010 :05).

Pupils are exposed to the danger of stress because of their central role in the society, they are living a period of lost where they are obliged to work and study harder to please their parents and teachers besides to create their future and chase their ambitions.

However, the third variable that controls both dependent and independent variable is Anxiety that comes from accumulated stress, This unfriendly disorder may distroy human's health lingeringly, Thus is when you have extreme ongoing inner fear and worry that is causes changes in behavior, sleeping, eating, mood. Pupils who suffer from anxiety cannot be functional i,e they can't hear, focus, understand, remember...etc. Anxiety is defined in Oxford Medicine website (2005) as « A multiple mental and psychological phenomena, including a person's conscious state of worry over a future unwanted event, or fear of an actual situation » .

All these variables can negatively affects pupils learning and memorization abilities, We can't ignores the fact that motivation is the engine that supplies pupils with energy within their long journey of learning, It's not just an encouragement but also a solid basis that ensures pupils continuity of diligence, If motivation was eliminated pupils would lose their desire of learning, Study would become boring and routinized as soon as they will be vulnerable to the danger of so many psychological and cognitive disorders such as : Depression, Anxiety and of course weakness of memory and concentration, Otherwise stress has total negative impact on pupils whereas right down to the level of genes stress begin with something called The Hypothalamus Pituitary Adrenal Axis and it is series of interactions between endocrine glands in the brain and on the kidney which controls the body's reaction on stress, When the brain detects a stressful situation the HPA axis instantly activated and releases a hormone called Cotrisol which primes the body to handle the stress, But according to scientists the high level of Cotrisol over long periods of time make a serious damage in the brain by causing shrinking in size as well as minimize human's ability in concentration, learning and remembering things.

Definitely Anxiety is the most critical and dangerous variable within all the aforementioned variables, It's creates an ongoing stressful atmosphere that lets pupils lives an apprehension condition, Whereby the high level of anxiety that consisting over time can effectively shot down pupils brain capacities, So they become finding difficulties in possessing, coding and encoding information.

1.6 Problems faced by Third year pupils related to memory and motivation

Although memory and motivation are not the same things, it is clear that these two aspects are fundamental cognitive processes in pupils learning. The two processes are interrelated and have problems that affect pupils' academic performance. The following sections mention some problems/causes related to these two aspects.

1.6.1 General Problems related to memory

Memory is not perfect has many problems, these problems can be in any processes of memory such: in encoding ,storing or retrieving. First, in order to encode information in memory, it must first be noted. Pupils with attention deficits often have difficulty with the first memory process. Even when pupils with attention deficits focus on relevant information, they may only focus on a very superficial level. They do not activate prior knowledge and relate it to the information to be learned. For example, when pupils read the Battle of New Orleans, they may not be able to retrieve information from what they already know about the war, New Orleans, or Andrew Jackson's long-term memory. Failure to adequately process incoming information often results in deficits in long-term memory storage and retrieval.

Pupils with deficits in remembering encoded information may have difficulty remembering instructions or what they have just read. Most of pupils are struggling in school have relative weaknesses in their short-term auditory memory, and since most of the information presented by the auditor in the classroom is presented in verbal form, this weakness translates into important features their problems.

Second, Deficits in the encoding process can lead to problems consolidating or storing information in long-term memory. Pupils with long-term memory deficits are often overly dependent on memory. This strategy may be sufficient to retain information in short-term memory, but results in poor long-term memory retention. If we think of memory as a network of connections, then when we have multiple ways of accessing it, it's better to put something on that network. One way to create multiple paths is to put new information in multiple categories. For example, if a class is studying alligators, pupils actively classifying will think of the alligators they saw in television or in zoo and classify the alligators as reptiles. Pupils with long-term memory deficits may also have difficulty remembering what the memory research literature calls paired partners. Other memory deficits in semantic memory systems are problems with memory rules, such as grammar, punctuation, and capitalization rules. For some forms or formats of information, insufficient memory storage can be more problematic. We know that we have auditory and visual short-term memory. We are also able to store information in visual, spatial and visuospatial formats.

Deficits in the classification/categorization or storage of pairwise associations are under the conceptual umbrella of declarative semantic memory systems. Pupils with memory impairment may have difficulty remembering information about life events and episodes. For example, they can't remember what they ate for lunch early in the afternoon. Deficits can also occur in the storage of information in non-declarative storage systems, especially when learning skills and procedures. These latter skills also include tactile or kinesthetic memory systems.

Third, Pupils who are deficient in getting information from long-term memory often receive grades that do not reflect the time and effort spent studying and preparing for exams. These pupils and their parents often say, «I knew the information the night before the exam, but I didn't remember it when I took the exam.» Pupils with memory impairment often report «test anxiety.» Test anxiety is also a common complaint of many pupils with attention deficit problems. The two often appear together.

The inability to retrieve information quickly and efficiently from long-term memory when needed may be related to flaws in the encoding and storage of information. Therefore, each issue described in the previous section - related to classification errors, pair association storage errors, rule storage issues, information storage issues presented in a particular modality or format, life events or episodes. Information storage problems, and storage problems Information about the performance of both cognitive and motor skills and procedures-leading to memory retrieval flaws. A weak classification of information to be learned limits the way that information is accessed, which slows down and makes searching difficult. Schools can be an unpleasant place if you can't get other and «stuck» information efficacy (for example, pupils remember the teacher's face but not the name). Often pupils who have trouble with recalling the rules, especially those in the written language, can often do it properly when writing individual sentences. However, if you need to write long text in paragraphs or stories, performance will suffer. Don't misspell words, put punctuation marks where you belong, or capitalize words that need to be capitalized. In fact, it is often possible to distinguish between memory and search problems by examining a pupil's work at both sentence and paragraph levels.

Pupils who have trouble storing information presented in a particular format also have trouble remembering the same format of information. For example, pupils remember the names of all states and their capitals (pair partners) well, but because this information is in visual spatial format, they may not be able to remember the exact location on the map. The same pupil's memory allows her to assemble a large spongy puzzle of the United States, or walk from state to state on a large rug or rug with pictures and pictures of the United States, a tactile and kinesthetic memory system. Some pupils have good memory for spatial placement, but poor memory for the following sequence of events: B. Time series of events in history.

Not remembering an event or episode can be revealed by not being able to remember what happened in a sociable conversation or excursion. Pupils who have difficulty remembering skills and procedures can forget or skip steps when solving math problems. You may forget how to make letters while writing. Some of the pupils ask questions about words/letters When they are writing.

In addition to memory impairment, pupils may have difficulty recognizing information in their memory. One teacher said: some of the pupils I rate have problems with math because they don't see patterns of math problems. Therefore, all problems seem to be new to them, as there is no similarity between the problem just solved and the new one. This deficiency is often associated with what some teachers and parents call «math anxiety.» Even pupils with pattern recognition problems cannot recognize the recurring themes in the stories.

1.6.2 Forgetting

Forgetting is a part of everyday life and seen as help or hindrance to a person. Forgetting and memory go hand in hand, and there is a lot of literature on forgetting curves but to simplify here, it is helpful to keep in mind that forgetting has different types, causes and can also effect pupils' learning.

1.6.2.1 Definition of forgetting

The term forgetting refers to the loss of information already stored in long-term memory. It is also known as a passive mental process where we cannot remember experiences or information we have already learned. It is a failure to retain what has been acquired.

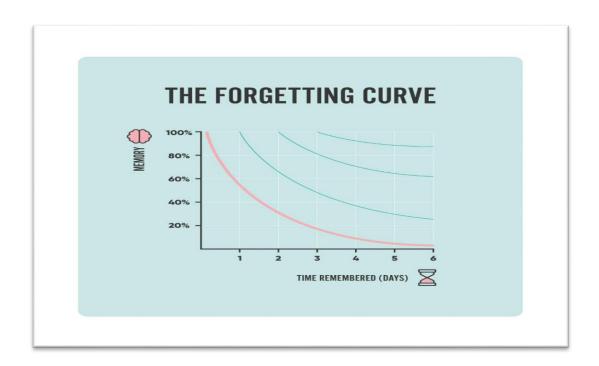
According to Munn (1967): "Forgetting is the loss, permanent or temporary, of the ability to recall or recognize something learned earlier." Also Drever defined forgetting

as "means of failure at any time to recall an experience, when attempting to do so, or to perform an action previously learned."(1952).

Forgetting was first studied in detail by Hermann Ebbinghaus (1885/1913). He carried out numerous studies with himself as the only participant. Ebbinghaus tested

his memory with absurd three-letter syllables. He relied on these absurd words because using previously known words would mean appealing to his existing knowledge and memory associations. To test the new information, Ebbinghaus tested his memory for periods ranging from 20 minutes to 31 days. He then published his findings in 1885 in Memory: A Contribution to Experimental Psychology. His results plotted on the socalled Ebbinghaus forgetting curve show the relationship between forgetting and time.

Initially, information is often lost very quickly after it is learned. Factors such as how the facts used to be realized and how frequently it was once rehearsed play a function in how shortly these memories arelost. Information saved in long-term memory is tremendously stable. The forgetting curve additionally confirmed that forgetting does now not proceed to decline until all of the statistics is lost. At a certain point, thequantity of forgetting levels off.



(Figure 1.5: The Ebbinghaus Curve of Forgetting Model1885).

(The curve shows how quickly information is forgotten over time when we are not trying to retain it. Without consciously reviewing this information, learners can quickly lose their memory of what they have learned within days or weeks. Some studies show that people forget about 50% of new information within an hour of learning it. This rose to an average of 70% within 24 hours.)

Types of Forgetting

1)Natural Forgetting: Forgetting happens quite normally over time and the individual has no intention of forgetting.

2)Morbid or Abnormal Forgetting: In this type of forgetting an individual forgets his things or information according to his wishes.

3)General Forgetfulness: In this type, previously learned memories are completely lost or not recalled.

4)Specific Forgetfulness: This forgetting refers to individuals forgetting only one or another specific part of their previous learning.

5)Physical (organic) Forgetfulness: In this type, people lose their memory due to age factors, disease, biological dysfunction of the brain and nervous system, accidents, and other intoxicating substances.

6)Psychological Forgetfulness: This forgetting is caused by factors such as stress, anxiety, conflict, tantrums, apathy, oppression, or other emotional and psychological difficulties.

1.6.2.2 The four basic explanations for why forgetting occurs:

Many factors can lead to forgetting. Sometimes you can get distracted while learning new information, which can mean you can never actually remember the information so you can recall it later. Prominent memory researcher Elizabeth Loftus has proposed four main explanations for why forgetting occurs. These lead to some important forgetting theories:

1)The Interference Theory

According to this theory, our ability to remember what we are currently learning can be disrupted (interfered with) by previous learning (proactive interference) or by future learning (retroactive interference). In simple words, interference theory holds that forgetting occurs because similar memories interfere with the storage or retrieval of information. It explains that the failure of memory is not due to the passage of time, but due to similar memory interactions. What we do between learning and remembering is important for us to forget. For example, pupils often get confused when learning two similar theories or two words with similar pronunciations at the same time in a foreign language. Finding the right path in the nervous system can seem difficult when two are close together and look the same. The concept that interference causes forgetting has a long history (see McGaugh, 2000). However, it is only in recent decades, following experimental work such as that by Baddeley and Hitch (1977), that this theory has become the dominant explanation for everyday forgetting. Cognitive psychologists distinguished two kinds of interference.

1.1)Retroactive Interference

Retroactive interference occurs when old memories are altered by new ones, sometimes eventing forgetting the original memory. This occurs when newly learned information interferes and hinders the retrieval of previously learned information. When this information is not used, the ability to recall previously learned information is severely limited and a wealth of new information is presented. This usually happens when you hear breaking news numbers and then try to recall past facts and figures. An example of this is learning a new way to make a paper airplane and then not remembering how it was made before.

1.2) Proactive Interference

Proactive interference occurs when old memory interferes with the ability to create new memory. In this type of interference, old information impairs the ability to remember new information. For example, when old scientific facts interfere with the ability to remember updated facts. This often happens when learning memory in similar situations or in connection with something similar. It is when we have a prejudice about the situation or event and apply it to the current situation or event. An example is as an adult who learns that Pluto is a planet in our solar system and says that Pluto is no longer considered a planet. Such strong memories adversely affect the recall of new information. When asked how many planets there are, a person who grew up on Pluto as a planet might say 9 instead of 8.

2) Motivated Forgetting (Repression)

Another cause of forgetting is motivated forgetting, or forgetting for some reason. The concept of motivated oblivion comes from Sigmund Freud, who suggested forgetting information because it threatens us in some way. Freud believed that the conscious mind often deals with unpleasant or dangerous information by pushing it unconsciously. The unconscious preserves primitive instinctive motivations, memories, and emotions that threaten the conscious mind. This happens unknowingly through the process of tyranny. Unconscious content is usually inaccessible to the conscious mind and is unforgettable.

The concept of repression played an important role in Sigmund Freud's theory of human personality in causing psychological disorders (mental illness). Repression is a defense mechanism used to block threatening or painful thoughts and desires from consciousness. It is often called selective forgetting. Freud's book Psychopathology of Everyday Life, states that all oblivion is motivated.

He revealed that slipping tongue, forgetting names, and appointments duties, all result from motivated oblivion because people want to protect their ego from anxiety. Unpleasant memories, guilt, frustration, mistakes, and shameful events that are toopainful to remember force us to forget our defenses against anxiety. This helps explain why people generally remember more enjoyable events than unpleasant ones. Unpleasant memories have been suppressed. For example, you often forget your umbrella because you think it makes you old and clumsy.

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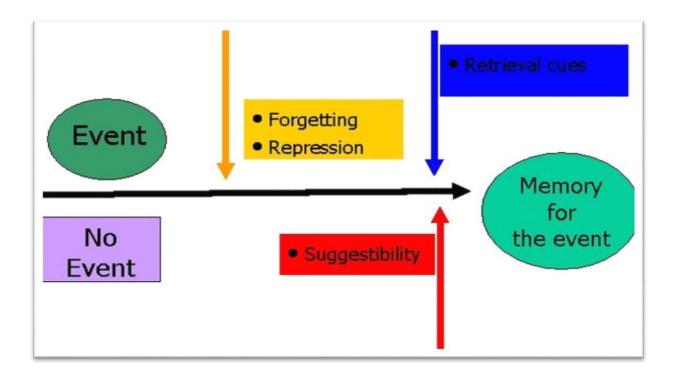


Figure 1.6 (Sigmund freud's psychoanalytic model "Effect of repression on memory consolidation 1915)

3) Retrieval Failure

The retrieval failure theory was developed by Canadian psychologist and cognitive neuroscientist Endel Tulving in 1974.Retrieval is when we recall memories or bring them into consciousness. The organization of the storage material makes it easier to find. Memories are easily identifiable when given appropriate retrieval cues. Specific smells, names, or other stimuli evoke memories of forgotten events, objects, names, etc. Retrieval cues help recall information when it is not possible to recall it spontaneously. Retrieval errors occur when we do not encrypt information or the memory we store expires. Information sometimes gets into our brains, and even though we know it's there, we can't get it out. A person's name may be on the tip of the tongue (TOT), waiting to be retrieved. Without proper retrieval cues stored in long-term memory, people cannot remember, so forgetting occurs. Retrieval cues are influenced by contextual memory and state-dependent retrieval.

Contextual memory indicates that material learned in one setting or context is more likely to be remembered in a similar setting. State-dependent retrieval refers to the internal state of an individual. In fact, we are more likely to recall information stored in long-term memory when our internal state is similar to the state when the information first entered memory. For example, studying in one place and testing memory in a completely different place makes it difficult for people to remember previously learned material.

4) Trace decay Theory

Decay theory is the oldest explanation for forgetting. The layman must understand that forgetting is the most common common sense. It explains that forgetting only happens over time, due to the fading of memory traces. This explanation assumes that learning leaves "traces" in the brain, meaning that memory traces involve some kind of physical change that did not exist prior to learning.

Over time, the normal metabolic processes and chemistry of the brain can cause memory to weaken or degenerate, allowing previously learned trajectories to gradually dissipate and eventually disappear completely. These neurophysiological changes gradually disappear when not in use. For example, when we see a picture, we can remember it in detail, but over time the details are quickly forgotten while the main outlines are remembered. Forgetting stories, images, and memories, a definition, suggests a process that fades over time.

The decay theory has been rejected by psychologists for the past few years as false and incomplete, as it is not supported by direct evidence. Psychologists argue that forgetting is more complicated than fading memory over time. Acceptance of the three-stage concept of memory has returned the theory of collapse to limited support, as it is difficult to empirically refute it. It fits into many observed memory phenomena. There are many instances in which learning is retained over long periods with no intervening practice.

5) Failure to store (another cause of forgetting)

Loss of information has nothing to do with forgetting and may be related to the fact that it was never reflected in long-term memory. Information may not be able to be stored in long-term memory due to coding errors. In a classic experiment, researchers asked participants to identify the correct US penny from a group of counterfeit penny paintings; 5 People are familiar with this everyday object, but surprisingly poor at identifying important details. This is because only the details needed to distinguish a penny from other coins are encoded into your long-term memory. You don't need to know the exact image or text on the coin to identify a penny. Because this information is not actually needed, most people will never remember and remember it.

Memory also tends to be simplified. While you may remember the general gist of something, you may forget many details. This is actually an adaptive feature that allows you to effectively save important things you need to remember in the future.

1.6.3 Personal problems related to motivation that impacts pupils' performance

By all the odds, the personal condition of pupils plays a crucial and critical role in shaping their academic state. Scholars and educationalists argued the fact that the surrounding environment of pupils can either provide them or withhold them the main element of creating their academic success i,e motivation. Therefore establishing an appropriate environment, situations and relationships that encourage and reinforce motivation should be a priority if we want to reform and evolve the educational field, To do so we must spot the light on two fundamental factors in any pupil's life (Teacher and Family),The journal of chines sociology (Chiang 2019) mentioned "When examining factors related to pupil academic outcomes, many scholars agree that family background plays a critical role, besides to the pupil- teacher interactions"

1.6.3.1 Family influence

Family issues such as divorce, parental conflicts, and uncared bullying parents can

effectively destroy pupil's mental psychological well-being, Motivation provided by parents cannot be replaced by any other kind of motivation, Is that emotional super energy that can supplies those young individuals with love, care and support during their long journey of schooling. If pupils lived in poison family environment they will not receive any supportive emotional encouragement, and that would definitely creates psychological illness for them, as soon as a huge amount of dark thoughts will circling in their minds such as feeling guilty, unloved, neglected...etc. As a result they may face the inability of concentration, According to Abrantes and Casinillo (2020:113)" In broken homes, pupils that have suffered from neglect or lack of care known to be psychologically imbalanced to fact the realities in their lives".

To tackle family influence on pupils' performance we must inspect the most common cases of family failing:

a) **Divorced parents:** studies shows that pupils with divorced parents have low scores than those with parents who are still married, but why?. Educational psychologists agreed that divorce can be a chock. Some pupils may not be able to handle the radical changement they witness and accept the idea of family break-up, Like that they start feeling responsible to fix their parents relationship and their whole focus and mental energy will be spent on bettering their family ties. Those victim pupils suffer from emotional loneliness so how they can get parental motivation to study adequately?

According to Lindsay C (2015:7) "Emotional loneliness comes from not having enough emotional intimacy with other people. It can start in childhood, Due to feeling emotionally unseen by self-preoccupied parents, Or it can arise in adulthood when an emotional connection is lost", It's not merely about losing significant source of motivation, But parental divorce can cause hurtful psychological disorders therefore the pressure of divorce i,e (Listening to fights, Conflicts, Picking sides) gets pupils into a cycle of flops and ongoing process of thinking and absent-mindedness. As soon as they lose the balance of school and their personal life.

b) Parental Pressure: Generally parental pressure is a product of the authoritarian parents who are similar to the morchic administration. This type of parents establish strict rules and instructions their children must follow, And if they didn't obey them they will inevitably get punished.

In this destructive parental-children relationship, children are expected to follow blindly their parent's wants even if they don't understand why they should follow these orders. Simply because parents refuse to communicate and explain their children's questionings, like that a high pressure will be on pupils thus those poor pupils may found themselves study a field they didn't choose it because they are interested to it, But to please their parents desire who decided to invest in their children's lives, Lindsay C (2015:72) "Driven parents seems so invested in their children success that their egocentrism is hard to see, most of time you wouldn't notice anything unhealthy about them, However their children may have trouble with either initiative or self control, paradoxically these very involved hardworking parents often end up with unmotivated, even depressive children", Thus this style of parenting is believed to have a passive effects on pupil's psychological health Gorlink (2003:38) mentioned "Diminishing their sense of parental value and responsibility. Additionally, The high level of parental pressure incorporated within the authoritarian style can often reduce children's intrinsic motivation, causing them to be reliant on extrinsic sources, thus undermining the process of learning".

c) Irresponsible parents: Is considered to be the worst kind of characteristics parents can have, Irresponsible parents or uncared parents engage in range of behaviors toward their children that make you wonder why they have family in the first place. Whether their behavior is mild or severe they don't enjoy the emotional intimacy and clearly don't want to be bothered by their children. Definitely this type of parents cannot offer any motivation and tenderness simply because they are immature. Hence they don't communicate effectively with their kids or get involved in their grooming and schooling, In other words they don't care about their children's emotional and schooling state. They believes that parenting in only about fulfilling their children's basic needs like food, clothes and medicines.

Hong (2012:40) maintained "Since uninvolved parents do not provide the necessary attention for their children's needs, The children may likely engage in socially unacceptable behaviors within and outside of school, as they attempt to seek this attention, engaged in such activities. And with the absence of expectations from others, they may not have the necessary motivation for educational pursuits".

In such a case, Pupils who belongs to this kind of parenting atmosphere tend to search for alternative source of tenderness to fill the emotional gap they have, plus to feeling inferior and unwanted make them think that whatever they would do no one will appreciate them, so they choose to be medium or weak academic performers.

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1.6.3.2 The Teacher's Role

One of the external factors affecting pupils achievement is the influence of the teacher's role, In broad sense the teacher has a psychological power that can impacts his pupils behavior and academic outcomes, He is not just knowledge provider but a facilitator, monitor, partner, a psychologist and of course a motivator, thence the implementation of motivation in the teaching process is a whole philosophy must every teacher understand in order to materialize it adequately as it is maintained by C. Hall and Goetz (2013:42) " Teachers have the opportunity to positively influence their pupils' achievement emotions, humor, enthusiasm and enjoyment should play an integral role in instruction".

Therefore scholars stress out on one main component that fundamentally contributes in shaping an appropriate motivational framework managed by teachers:

• The Emotional Competence

Teachers just like pupils experience success and failures as a part of daily school life, and thus fell happiness, anger, anxious....etc. So any discussion of emotions in the classroom should also focus on those experienced by teachers, Arguably the teacher is the leader in his classroom, he is the one who set the rules and monitors pupils, in fact he has the power of shaping tomorrow's generation mentality and of course their academic destiny.

This social expectations and responsibility needs a competent teacher in both pedagogical/academic knowledge and especially emotional awareness, therefore being emotionally competent has become a moral commitment and a professional standard for the teacher, Thus it is when the teacher is knowledgeable about the special importance of emotions in the life of his pupils , In clear words is the teacher's psychological ability in understanding and interpreting his emotions first and those of his pupils second in order to act and react professionally, According to Tolegenova et al (2015:193) "Emotional competence is the ability to understand own feelings and emotional conditions of others".

However, the job pressure and the amount of responsibilities the teacher is handling from producing an intellectual aware generation to being a role model in wisdom and social dealing is quite intractable mission, in the other hand teachers are often the object of criticism as it is emphasized by C. Hall and Goetz (2013:46) "The teaching profession is characterized simultaneously by high societal demands and low appreciation that together promote feeling of frustration and resignation", Definitely all these pressures can negatively impacts teacher's psychological well being, therefore causing losing the passion of the profession and the teacher becomes overexposed to the burnout condition Which refers to " A case of emotional exhaustion that corresponds to reduced ability to work" C. Hall and Goetz (2013:42), This psycho condition leads to unfavorable behaviors in the part of the teacher just like being passive and impulsive, and this will results a poison educational environment, as soon as pupils' psycho cognitive state will get gradually recedes.

To avoid this unwanted hypothesis, The teacher must be emotionally intelligent whereas pupils are in need of being supervised under a sober and motivating teacher who guides them towards their academic success through a healthy psychological approach.

1.7 Conclusion

To sum up everything has been stated so far, scientific researchers and educational psychology experts unanimously approved that pupils' cognitive performance and their memory forcefulness can be highly affected whether positively or passively according to their psychological conditions and the amount of motivation they receive. Furthermore, most of previous studies connected the weakness of memory and the mental block that occurs during the examining to the psychological disturbances and obstacles that pupils are exposed to during their daily lives.

In this vein, numerous motivational strategies and techniques of memory reinforcement have been introduced to help pupils improve their cognitive performance and ameliorate their memorization abilities. However the next chapter will be devoted to investigate the impact of motivation on memory's performance as well as the academic achievement by studying and analyzing the case of the Algerian third year pupils.

Chapter Two: Research Methodology and Research Findings

- 2.1 Introduction
- 2.2 Research Design
- 2.3 Sample Population
- 2.4 Data Collection
 - 2.4.1 Classroom Observation
 - 2.4.2 The pupils' Interview
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- 2.5 Data Analysis
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 - 2.5.2 Pupils' Interview Results
 - 2.5.3 Teachers' Questionnaire Results
- 2.6 Interpretation of the main findings
- 2.7 Suggestions and recommendation
- 2.8 Conclusion

2.1 Introduction

This chapter is dedicated to expose the research design relied by the researchers, the analysis of the obtained data, besides to providing propositions and recommendations. It includes a broad description of the case study and the approach used, in addition to represent the employed instruments in the process of data gathering. i,e. The classroom observation which was conducted at Bou-Azza Miloud high school in Maghnia Tlemcen with the teachers and pupils of the third grade (BAC sections), an interview with the pupils of the same high school, and questionnaire directed to teachers.

Furthermore, the following chapter tackles an elaboration of the sample and setting adopted for the case study, followed by quantitative and qualitative analyzing of the data, plus to display a detailed discussion and interpretation of the final findings. At the end of this chapter the researchers stated out some recommendations directed to both BAC teachers and pupils and their parents.

2.2 Research Design

Research Design is an indispensable part in conducting any research study; therefore, it is needed because it facilitates the search operation by standing for an advance planning and organization for the methodology to be adopted, instruments of data collection and techniques to be used for analyzing the obtained information. According to Kothari (2004:31) "Research design is the conceptual structure within which research is conducted; constitutes the blueprint for the collection, measurement and analysis of data". In this work, the researchers adopted the mixed methods approach which is quite relevant and suitable for the nature of the discussed topic, this approach aims to utilize both quantitative and qualitative methods, whereas combining both approaches helps in providing better insight on the problem than either one alone, as Greswell (2018:51) emphasized " All methods has bias and weaknesses, and the collection of both quantitative and qualitative data neutralized the weaknesses of each form of data". The researchers opted variety of research instruments in order to obtain valuable and valid information, they used the observation as a mean of remarking both teachers' performance and pupils' behavior in classroom in order to gain a deeper understanding of the classroom atmosphere. Dawsan (2009:33) mentioned "Researcher who uses observation hope to gain a deeper understanding into the behavior, motivation and attitudes of the people under study". In addition to preceding a structured interview with a range of baccalaureate students to attain rich responses and get more details about the subject matter. The quantitative tool used in this research is a questionnaire directed to a different group of teachers who has good experience in dealing with BAC pupils, the purpose of using this instrument is to pick out varied information i.e. seek out different notions and realities.

However, the case study is a research method that enables researcher to make generalization and draw conclusions, is like an in-depth and extended example that is used to illustrate a particular argument. In more academic sense we can identify case study as "a method for developing a complete understanding of a process, program, event or activity" Newcomer et al (2015:177). The present case study is an exploratory multiple case study i, e. It studies a particular issue in order to understand it better and to explore interesting ideas and insights. This case study is designed to gather data about the third year pupils and teachers at Bou-Azza Miloud high school in Maghnia Tlemcen (Algeria) and Maliha Hamidou high school (Tlemcen).

2.3 Sample Population

Sampling is very important process in research because the choice of the sample determines the value of the data collected and the success of the study. The sampling adopted in this research is the quota sampling i,e the samples were picked out selectively according to very specific characteristics, Dattalo (2008:6) " Quota sampling is non-probability version of stratified sampling. The distinguishing feature of quota sample is that guidelines are set to ensure that the sample represents certain characteristics in proportion to their prevalence in the population".

However the present research took place at Bou-Azza Miloud high school in Maghnia, and Maliha Hamidou high school inTlemcen.

During the observation 6 different baccalaureate students were selected to participate in this research, those pupils do not belongs to the same classroom and specialty, but they do share the same age (18 years old) and goal (BAC degree), thus pupils' sampling consists of 3 scientific pupils, 1 mathematics pupil, 1 literary and philosophy pupil, and 1 foreign languages pupil. In addition to the interview and observation, the study also provided a questionnaire. The questionnaire was conducted at Maliha Hamidou High School (Tlemcen, Algeria) and Bou-Azza High School (Maghnia, Tlemcen, Algeria). During the questionnaire period, 10 different Baccalaureate teachers, not from the same high school were selected to participate in this study; 6 of them were from Maliha Hamidou High School and 4 were from Bou-Azza High School.

2.4 Data Collection

The task of data collection begins after the research design has been planned and organized, thus it is an important process that should be based on set of principles that determines the quality of the gathered information, these principles includes validity, reliability, practicality, moreover research ethics have to be taken into consideration. Since the aim of the present research is to investigate the effect of motivation on the memorization performance of the third year pupils, three main methods are considered suitable to tackle all the research aspects adequately, therefore the researchers have employed: Classroom observation, Pupils' interview, Questionnaire for teachers.

2.4.1 Classroom Observation

Observation is the most common method of data collection used in psychology and sociology science. It is about watching people's attitudes and behaviors, this method enables the researcher to 'live' in the participants' situation as well as discover facts that cannot be discovered through another method of data collecting.

According to Sapsford and Jupp (2006:59) "Observation as a research method has a number of clear advantages over interviews and questionnaires:

- Information about the physical environment and about human behavior can be recorded directly by the researcher without having to rely on the retrospective or anticipatory accounts of others.
- The observer may be able to "see" what participates cannot.

• Observation can provide information on the environment and behaviors of those who cannot speak for themselves."

However, the researchers used the non-participant observation during their investigation, "Non-participant observation is when a researcher do not get involved in the activities of the group but remain a passive observer i,e watching and listening to the activities and drawing conclusion from this." Kumar (2011:141), hence they were observing pupils and teachers with their consent but without participating in the classroom activity. The aim of the observation was to observe both teachers and pupils behaviors and attitudes in order to inspect teachers' role as motivators and academic producers, plus to select pupils sampling (a group of pupils has different characteristics in term of: personal and family circumstances, academic specialization, intelligence level). The observation took place in different grades with different teachers and pupils, the researchers attended ten sessions, the permanence of these sessions was between forty five minutes to one hour. To conduct the observation properly the researchers utilized an organized schedule contains all the recommended items to observe both teachers and pupils behaviors and interactions in form of a checklist. However two checklists were employed, the first one is for teachers' behavior and the second one is for the pupils' behavior.

2.4.2 The Pupils' Interview

Interview is a research method commonly used by researchers to gain insight about thoughts, opinions, and attitudes of the respondents, it comes in form of conversation between the researcher and the interviewee where the researcher propose a series of questions concerning the subject matter, theses questions includes both open-ended and closed questions. Cohen et al (2018:506) said "Interview enables participants 'interviewers and interviewees' to discuss their interpretations of the world in which they live, and to express how they regard situations from their own point of view. In these senses the interview is not simply concerned with collecting data about life, it is life itself'. Although it is time consuming but we cannot ignore the fact that the interview can offer detailed information about personal feelings, thoughts and opinions, besides to enabling the researcher a chance to clarify ambiguities.

The face to face interview was done with six third year pupils who belongs to the same high school "Bou- Azza Miloud high school", but they do not share the same academic characteristics as it was mentioned previously, the duration of the interview with each student was 15 minutes. However the researchers used structured interview in which they planned and prepared the interview questions in advance. Cohen et al (2018:509) stated "The structured interview is useful when the researcher is aware of what she does not know and therefore is in a position to frame questions that will supply the knowledge required".

The face to face interview contains 10 questions aiming to get different information from the interviewees concerning their feelings towards this important academic event, their emotional and cognitive preparations, the challenges they faced during the school year, besides to taking their perspectives about goal orientation and the deactivation of memory during examining.

2.4.3 Teachers' Questionnaire

A questionnaire is a research tool consisting of a series of questions or other types of prompts designed to gather information from respondents. Research questionnaires are usually a mixture of closed and open-ended questions. The data collected from the questionnaires used for data collection can be both qualitative and quantitative in nature. According to Saul McLeod, updated (2018)"A questionnaire is a research instrument consisting of a series of questions for the purpose of purpose of gathering information from respondents."

The questionnaire is the third research tool used in this study. It was conducted for third year teachers (Baccalaureate exam)at Maliha Hamidou and Bou-Azza High Schools. It is the most suitable tool for selected participants. According to Richards (2005:6): "Questionnaires are one of the most commonly used tools. They are relatively easy to prepare, can be used on a large number of topics, and provide information that is easy to tabulate and analyze."

In other words, questionnaires are the most appropriate resource for a large number of respondents. Also, it is easy to analyze because the answers are mainly given to the questions we are looking for, which are answered using qualitative and quantitative

methods. Therefore, this instrument is currently chosen due to its convenience research topic for collecting data from a group of participants.

The following questionnaire is divided into 3 sections (personal information, teaching approach students learning experience). Personal information section seeks teacher's gender and teaching background. Teaching approach seeks to ask teachers about their methods and techniques they use in classroom for the third year pupils, and also ask them about the changes that have occurred in syllables(program..) during Covid-19. Pupils learning experience, aims to find out about pupils and behavior in the classroom environment, and also ask teachers about how these changes during Covid-19 impact pupils.

Section one (personal information) contains six questions. It mainly represents the teacher's personal profile. It seeks teachers gender and teaching background (level,subject, number years in teaching third year classes...).Section two (teaching approach) includes six questions. It state the methods and techniques that teachers typically use with the Third year pupils in the classroom; in addition to the underlying changes that occurred during Covid-19. Section three (pupils learning experience) contains eight questions concerning with pupils learning and behaviors.

2.5 Data analysis

The operation of data analysis is an essential part of any research study. In this point the researcher turns to analyze the collected data either quantitatively or qualitatively or by using them both, in this context Marczyk et al (2005:209) introduced a brief description of the types of data analysis "Data analysis can be broken down into two majors areas: Descriptive and inferential. Descriptive statics allows the researchers to describe the data and examine relationships between variables, while inferential statistics allows researchers to go beyond the parameters of their study sample and drawn conclusions about the population from which the sample were drawn." Hence the data collected in this research by using observation, interview, and questionnaire was analyzed quantitatively and qualitatively.

2.5.1 Classroom Observation Results

Classroom observation took place at Bou-Azza Miloud high school Maghnia Tlemcen with the third grade (BAC) pupils and teachers; it was carried in 10 sessions with different teachers, at different classes and specialties. These sessions were divided between various subjects (English, Arabic literature, Philosophy, Mathematics, History and Geography). The purpose behind conducting this classroom observation is to investigate how teachers are preparing their pupils for the baccalaureate exam academically and psychologically besides to inspect the pupils in class-performance and behavior within the scope of their interactions with their teachers.

The results of the classroom observation have shown that all the observed teachers have the motivational sense, thus they were motivating and encouraging their pupils extrinsically by giving them positive comments and compliments when they answer a difficult question correctly, in fact during sessions teachers were devoting 3 to 5 minutes to verbally motivate their pupils by reinforcing their self confidence and providing them some psychological advices.

Although there was some disturbing acts in the part of some talkative pupils but the majority of teachers were reacting wisely by involving those pupils into the lesson's atmosphere, this indicates that the observed teachers masters both the emotional and professional competencies. The teachers' explanations were simple and clear concerning the literal subjects; meanwhile the math teacher was facing difficulties in delivering the information to his pupils. Worth to mention that all of them were exerting extra efforts not only by explanations but also they were giving their pupils beneficial instructions concerning the answering methodology and the subject selection. Furthermore the most interesting remark the observers observed is the lack of interaction coverage in the part of the English teacher when he was teaching the foreign languages section. However, the common obstacle that all teachers are suffering from is the shortage of time, the bell was always ranging before the teachers finish their explanations, that why all teachers decided to eliminate the pupils' physical involvement as a way to save time.

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The second purpose of the classroom observation is the pupils' behavior and in class performance and participation. During the sessions of the comprehension subjects the majority of pupils were seems demotivated and stress out, by contrast in the sessions of memorization subjects like History and Geography pupils were super motivated and interactive. Minority of pupils were facing difficulties in focusing and understanding, whereas teachers were explaining several times by using helpful examples, moreover most of pupils were participating during the literal and memorization subjects, unlike other sessions the participation is confined between the few excellent pupils.

As a result, the classroom observation revealed the BAC teachers' competency in preparing their pupils academically and psychologically for the most important academic event in their lives, the observers also came out with a general idea concerning the pupils' interactive performance and behavior, thus the difference relies on the nature of the tackled subject, whereas during the sessions of literal and memorization subjects pupils tend to be noticeably motivated and interactively active, on the other hand during the sessions of comprehension subjects the motivational sense within pupils decline and the interaction activity turns to be confined only between the intelligent pupils.

2.5.2 Pupils' Structured Interview Results

After classroom observation was finished and the pupils sampling was selected, the researchers organized a structured interview as tool to identify how the pupils are preparing themselves for the baccalaureate exam plus to spot the light on the challenges and difficulties they are facing.

• The structured interview was conducted by using the following questions:

Question one: How you feel when you think about the baccalaureate exam?

This question was mentioned to know the pupils psychological view concerning the BAC exam. Three pupils declared that they feel normal stress especially within the last period before the due date, two others said that they were suffering from continual

stress since the beginning of the school year, and one pupil answered that he don't feel stressful at all because according to him he don't care if he failed or passed.

Question two: How you manage your stress/ anxiety towards thinking about this important academic event?

This question was set to inspect pupils' emotional intelligence. One pupil said that hemanage his stress by self controlling and practicing meditation, two respond by exerting extra effort in revising thus according to them doing more exercises and spending more time on hitting the books makes them feel relieve, two other pupils answered by sleeping or skipping away from anything related to studies, however the sixth pupil confirmed that he don't feel any stress but if he does, he may go out and hang out with his friends.

Question three: Does your teachers were preparing you academically and psychologically for the BAC exam?

The following question was used to discover if the BAC teachers were doing their duties as they should.

All the interviewees answered by yes, they testified that their teachers were doing their duties to the fullest.

Question four: How did you choose the branch you are studying?

The aim of this question is to know if the pupils are intrinsically motivated.

Four pupils said that they have chosen their specialty of study by their own, while the other two pupils said that it wasn't their choice but they have chosen their the specialty they are studying just to satisfy their parents.

Question five: In which way you memorize your lessons?

This question was involved to get know the pupils strategies in memorizing their lesson besides to know their learning styles.

The first two pupils said that they don't memorize lessons but they comprehend them because that help them to store the information for long time, another two interviewees said they use the traditional way i.e. By reading the lessons several times and keep revise from a while to another, one stated that he drew diagrams and uses colors, the sixth pupil replied by writing the lessons several times.

Question six: How do you manage the preparation of comprehensive subjects?

The present question aims to inspect how the pupils are preparing themselves cognitively for the comprehension subjects.

Five pupils shared the same strategy, they said that they relies on YouTube and online courses besides to revising at home every day during the whole school year, these five pupils two of them mentioned that they don't attend the private remedial schools, however the sixth pupil answered that she relies on focusing in class with her teachers and repeat at home all what have been tackled in class.

Question seven: What you think about the trend of relaying on the private remedial schools?

This question was asked to know the pupils' opinion about the private remedial schools which became an official protocol for BAC preparation.

Four of them agree that the private remedial schools are beneficial, while the other two interviewees had an opposite opinion, they see that attending this schools is not necessary and it just waste of time and money.

Question eight: Forgetting information is the worst thing any candidate can face, have you experienced this issue during tests and how you restore the forgotten information?

This question was set to discover if pupils face mental block and memory suspension during examining and how they restore the forgotten information.

Five pupils admitted that they do forget information during examining, three of them said that they restore the information by repeating the whole lesson of the forgotten information through self reflection and, the fourth said by reading the question several times and the fifth answered by writing the lesson of the forgotten information, meanwhile the sixth pupil assert that she never faced this problem because she prepare herself very well for the examinations.

Question nine: What was the most difficult personal experience you lived this year? And how it impacted on your academic studies?

This question aims to find out the impact of the personal problems on pupils' academic performance.

Three pupils responded that they were living familial issues and it impacted passively on their studies, whereby they were unable to focus in class and when they were trying to learning something by heart their mind just went out, among those pupils two of them were living parental conflicts and the third one was under the chock of her parents' divorce, however the other three pupils said that they were under huge pressure because of the high expectations of their surrounded environment and especially their parents.

Question ten: Some students assume that the baccalaureate degree can be achieved by luck, what do you think about this assumption?

This question was mentioned to how pupils orient their goals and how they see success.

Five of the interviewees shared the same opinion; they said that BAC degree can be achieved only by hard working and self determination, which means that they are mastery goal orientation followers. On the other hand one pupil answered that BAC degree or any life success it's just question of luck, hence the sixth pupil is a performance goal orientation followers.

2.5.3 Teachers' Questionnaire Result

The teachers' questionnaire was given to ten (10) BAC teachers who differ in the subjects they teach and the institutions where they work, six of them belong to Maliha Hamidou high school and four of them from Bou- Azza Miloud high school. This quantitative tool consists of twenty (20) questions: four (4) close-ended questions, three (3) multiple choice questions, and thirteen (13) open-ended questions. It is worth to mention that all teachers were given enough time to answer the handed questionnaires; however the results of all questions will be analyzed and discussed bellow.

Section 01:

Question 01: what is your gender?

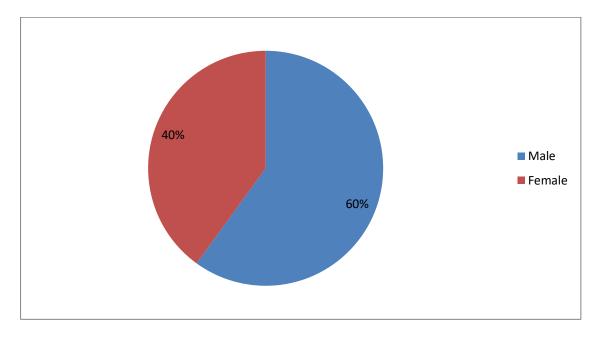


Figure 2.1 baccalaureate teachers' gender

As it is illustrated in the figure above, (60%) of teachers are males and (40%) of them are females.

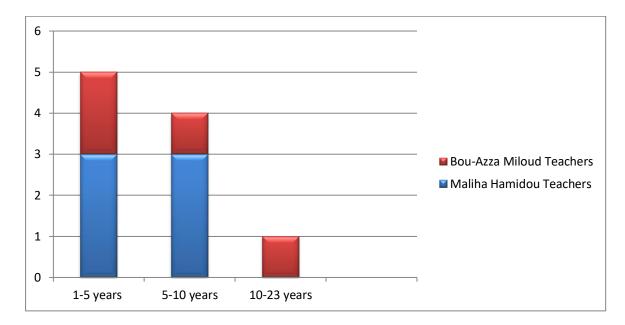
Question 02: How much years you have been teaching the third year classes?

Teachers Number	2 years to 7 years	7 years to up
10	4	6

Table 2.1 Teachers' experience in teaching the third grade classes.

The results of this question have shown that the majority of teachers have a good experience (more than 7 years) in preparing and tutoring BAC sections.

Question 03: How many years have you taught in the current high school?



Graph 2.1 Teachers' length of service in the current high school.

The graph above displays teachers' length of service in their work place, the majority of them have a enough experience, while one teacher has a long experience.

Question 04: Do you teach in private remedial schools/ extra courses besides teaching in public school? If "yes" do you notice any difference in the teaching-learning processes?

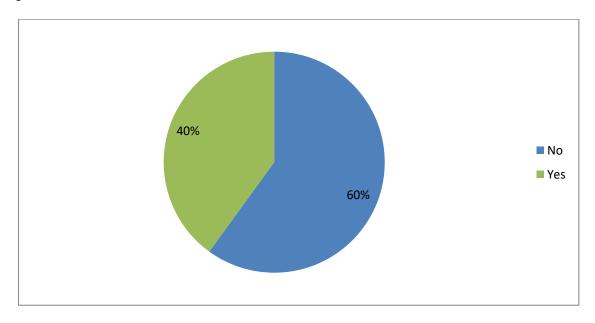


Figure 2.2 Teachers' teaching in the private remedial schools.

As it is exposed in the figure above, the majority of teachers (60%) do not teach in the private remedial schools and they don't organize extra courses, on the other hand (40%) of respondents answered by yes, according to them there is big difference concerning the teaching and learning process in the scope of the private remedial schools, thus they all agreed that pupils who attend these kinds of courses are more motivated and interested to their studies. Subsequently, the interaction activity is incredibly higher compared to the regular sessions in public schools.

Question 05: What is the subject you are in charge of?

The answers of this question were varied, the majority of the respondent tutor literary and memorization subjects, while the rest minority are teachers of comprehension subjects as it is shown in the following figure:

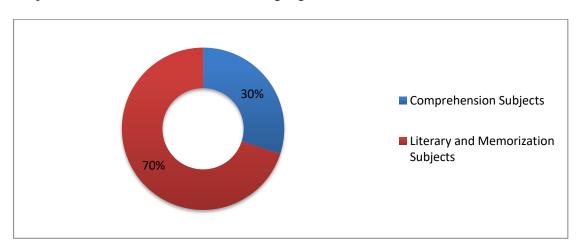


Figure 2.3 the Nature of subjects the teachers tutor.

However, all respondents have mentioned the subject they are in charge of; their answers are listed in the following tables:

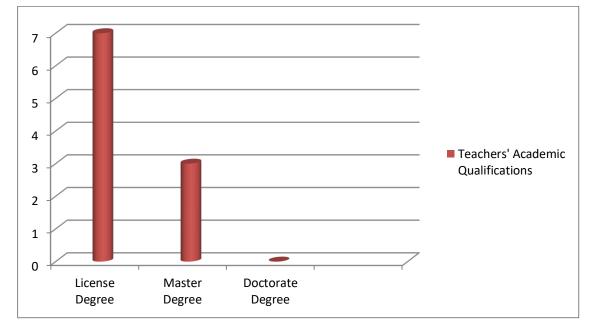
The literary and memorization subjects	Number of teachers
Arabic literature	01
Philosophy	01
History and Geography	02
English as a foreign language	03

Table 2.2 Teachers of literary and memorization subjects.

The comprehension subjects	Number of teachers
Mathematics	1
Science	2

Table 2.3 Teachers of comprehension subjects.

Question 06: Please, state your highest academic qualification.



Graph 2.2 the academic qualifications of the baccalaureate teachers.

The graph above displays teachers' qualifications, whereas the majority of the respondents (70%) are license degree holders, and the rest of teachers (30%) are master degree holders. So, none of them has the doctorate degree.

Section 02:

Question 07: what are the steps you go through to plan your lessons?

. According to the respondents answers, all of them shared nearly the same steps. Whereas they usually start by taking an overall look about the syllabus so they can be more organized in their instruction and make sure the series of lessons they teach are coordinated and systematic. The first step of any lesson plan is identifying the lesson's objectives that should be achieved by the end of the lesson, the teachers emphasized the importance of checking the textbook step, so they can use it as a source of the would be tackled lesson. The third step as the majority of teachers have mentioned is preparing a range of in-class exercises so they can show their pupils the correct way of answering. Meanwhile the teachers of the memorization subjects prefer to ask their pupils a set of direct questions instead of tackling on-board exercises. The last step of lessons planning is giving pupils homework.

Question08: Which teaching method do you use?

The responds of this question were different, thus the Arabic literature, Mathematics and Science teachers said that they relies on the inductive method. Whereas they undertake the lessons they deliver through representing examples or exercises at first to encourage their pupils to deduce the rules by their own. On the other hand, (Geography- History and Philosophy) teachers announced that they explain the lesson at first than they give helpful examples, which means they use the deductive method. However all the three English teachers said that they utilize the CBA method for the sake of helping pupils to be autonomous.

Question 09: What are the obstacles you encounter to make the lesson clear and accessible for all your pupils?

According to this question answers, the common obstacles all teachers are suffering from is the weakness of pupils' knowledge and the shortage of time, thus one hour per session is insufficient to deliver the lesson adequately. The third common problem is the inaccuracy of the textbooks, hence they contains plenty of errors and incorrect information. On the other hand, English teachers have complained from pupils' weak level in English, therefore very few of them can understand this foreign language which makes delivering lessons a hard task. **Question 10:** Do you assess your learners (at the end of each lesson, at the end of the each unit, at the end of the term)?

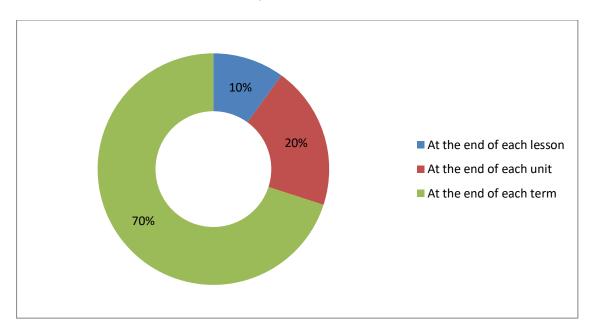


Figure 2.4 Teachers' preferable type of assessment

As it is seen in the figure above, the majority of teachers (70%) are using the summative assessment, 20% of them said that they undertake the formative assessment, meanwhile the minority of teachers (10%) answered that they use the diagnostic assessment.

Question 11: During Covid-19 what are the changes that occurred in the syllabus (the yearly distribution or the program)?

All the respondents have agreed that the pandemic wave have brought set of changes, these changes impacted passively on the teaching- learning process, according to all of them so many lessons have been delisted from the syllabus because of time limitation, thus timing also has been narrowed to 45 minutes per session which is not enough to deliver a whole lesson in one session, on the other hand teachers have praised on the pupils' grouping system, whereas covering their classes become much easier, the comprehension teachers stated that this division approach helped them to identify their pupils gap of knowledge and analyse their comprehension level.

Question 12: What are the difficulties you encounter with these changes?

The answers of this question do not differ of the responses of the previous question, but teachers have over emphasized on the time factor which plays against the benefit of both teachers and pupils, however some teachers said that pupils are the main victims of the massive changes have occurred, therefore they become demotivated and unconcentrated during lessons' explanations.

Section 03:

Question 13: What are the major difficulties that third year pupils face all along the school year?

The answers received of this question are varied, the literary and memorization teachers have pointed on the big portion of lessons pupils must learn by heart, this difficult task made pupil suffers from some psychological disorders like stress and anxiety besides of forgetting information so quickly, meanwhile teachers of the comprehension subjects mentioned that most of BAC pupils face difficulty in understanding and applying the rules of lessons by their own, however the English teachers said that the majority of their pupils face problem of comprehending and memorizing the new vocabulary especially the scientific section.

Question 14: How do your pupils interact during the lesson?

The answers of this question are divided according to pupils' speciality, the results have revealed that the foreign languages section pupils are more motivated and interactive within the scope of in-class atmosphere, whilst pupils of the literary and comprehension section are categorized into two types; some of them are motivated and so interactive, and the second type of them are passive.

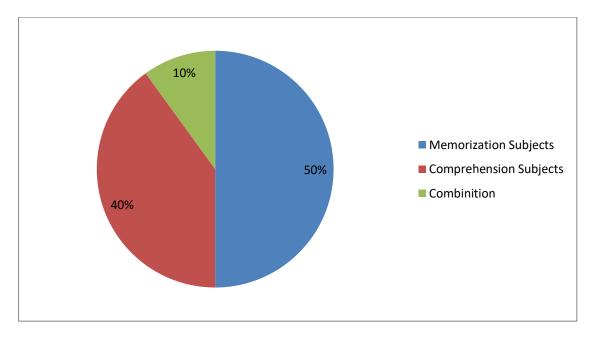
Question 15: During the session, what are the activities that attract pupils? According to all respondents, the activities that attract pupils are those which

contains images, drawings, and experimental tasking, also majority of pupils are more concentrated during oral discussions.

Question 16: What are the strategies do you use to motivate pupils during the learning process?

Respondents have answered on this question differently. First, teachers of comprehension subjects have stated that they motivate their pupils by using positive in- class competition to encourage them to work harder. While teachers of literary and memorization subjects said that they use various strategies like allowing their pupils to work on teams, giving them extra marks, and honoring pupils by certificates of appreciation.

Question 17 and 18: Do the majority of pupils excel in memorization subjects?



Do the majority of pupils excel in comprehension subjects?

2.5 Pupils' preferable subjects.

As it is shown in the figure, half of pupils (50%) are excel and more productive in the memorization subjects, the majority of those pupils belongs to the Literary and philosophy section, however 40% of pupils are excel in the comprehension subjects. As it is displayed above the minority (10%) of pupils are good in both memorization and comprehension subjects.

Questionnaire 19: During Covid-19 period, how did pupils deal with the different changes?

Almost all the teachers' answers are flying on the changes concerning school timing, therefore they have stated that the majority of pupils didn't adapt to the approach of half-day permanence. Some answers were about the big amount of lessons should be tackled compared with the time limitation, these conditions made the majority of pupils tired and much more demotived.

Question 20: Which impact have these changes had on their academic studies?

All teachers agreed that the Covid-19 system has impacted much more negatively on pupils academic studies. Whereas most of pupils lost their positive energy and sense of motivation, in fact they become so stressful and psychological unbalanced. Some answers pointed out that a good number of pupils are now unable to memorize or understand their subjects, although before the massive changes occurred they were good pupils.

2.6 Interpretation of the main findings

After collecting observation, interview and questionnaire data, the results of each results tool are discussed in connection with the hypotheses. They help researchers collect a large amount of data concerning the improvement of memory and motivation of third year pupils. And also helps the researchers to verify whether the two hypotheses proposed at the beginning of the research valid or not.

Classroom observation results showed that the observed teachers were motivated to teaching and encouraging pupils in different ways. In addition to the observation showed pupils's behavior and their class performance and participating during the process of comprehension and memorization sessions. At the end of the observation, we found that teachers prepare their pupils for final exam (Baccalaureate exam) both academically and psychologically.

The second interpretation of the main results collected from pupils'interview came as follow: Psychological aspects play a big role in pupils learning achievements (stress, anxiety,personal problems..).These aspects helped in understanding the mental,emotions and behavior capabilities to every individual. The interview also showed and proved that cognitive strategies (rehearsal, organization, memorization..) connected to memory and motivation which impact them either in negative way or positive way in their achievements.

In the third interpretation of main results collected from teachers' questionnaire used for investigating Third year pupils 'psychological aspects towards their learning achievements, the results of questionnaire combined the two hypotheses.

Regarding to the first hypothesis which stipulates that the Third year pupils may affected by some psychological aspects, most notably memory and motivation, the results of teachers 'questionnaire conducted at Maliha Hamidou and Bou-Azza high schools reveal that the psychological aspects memory and motivation (cognitive processes) affect pupils in huge wayto improve their achievements. In questionnaire section two, we asked teachers questions about their methods, strategies, and directions they used in accordance to teach Third year pupils, and what changes and difficulties happened during Covid-19 period. The purpose of this section is to take an overall look about various sides related to the teachers (their methods, strategies, difficulties...), the majority of results were that teachers did what they could in order to teach pupils and facilitate their lessons to benefit more , despite the changes and difficulties they faced in Covid-19.

Section three was the most important section in whole questionnaire which related to pupils and their problems during their learning (their interaction in classroom, activities they attract them, changes that impact them ...) and during the Covid-19 period. The results came as this way; the crucial problems faced these pupils that they are relying more on the memorization that is produced by serval consequences as forgetting especially in covid -19 period (program intensity and lack of time) in addition to other consequences such as pressure, anxiety, stress, less concentration and the more importantly, motivation was not exist for the majority of pupils. These results help to answer the second hypothesis mentioned in the beginning of research.

2.7 Suggestions and recommendations

After conducting the study, the results have shown that motivation has a crucial and fundamental role in reinforcing pupils 'cognitive abilities in general and their memory efficiency in particular, for this purpose the researchers have listed the following suggestions proposed for BAC teachers and pupils and their parents to help in somehow the Algerian pupils to improve their cognitive and memorization capacities as well as achieve the highest academic degrees.

Firstly teachers should:

- Be more than knowledge providers but motivators and role models in wisdom and sobriety.
- Set a special session to encourage pupils psychologically and help them to get over their fears toward the academic failing.
- Evolve their knowledge by keeping updated with the latest studies of their field.
- Attend seminars and study days to improve their teaching skills.
- Optimize the use of pair work and group work by using the 'mixed abilities' technique i,e. involve smart pupils with their weak classmates, therefore sometimes pupils understand better from each other.
- Use different techniques of explanations by varying activities and materials to satisfy all their pupils' learning styles.
- Invite those who experienced BAC failure and they came back with unexpected success to motivate their pupils.

- Try to give their pupils a pop quiz from a while to another to examine their knowledge and taming their memory.

Secondly pupils should:

- Learn more about learning styles so they get know their own style and use it to memorize their lessons.
- Be emotionally intelligent and pay attention to their psychological health.
- Keep out from pressure by practicing joyful activities or maybe go out to the nature from a while to another.
- Listen carefully to their teachers and take notes during the session.
- Ask their teachers help if they were not able to understand their lessons.
- Focus in class and repeat at home all what have been tackled.
- Use the 'Pomodoro' revising technique, it's a beneficial method of time management in which they break their revising duration into 25 minutes separated by 10 minutes breaks, this technique is very helpful for memory reinforcement.
- Summarize their lessons in brief paragraphs and diagrams drawn up by colors.
- Specialize one day in the week to get rest and have fun.
- Read stories of success and listen to motivational podcasts.
- Believe in their selves and be fully aware that nothing is impossible, the word itself says (I'm possible).

Thirdly parents should:

- Be a source of motivation for their children and teach them to see failure as part of their future success
- Respect their children's educational choices.
- Support their children and make them feel worthful.
- Spend more time with their children and communicate with them so they can express their thoughts and share their repressed emotions.
- Keep their couple' problems and conflicts far from their children.
- Adjust their behavior and be a good role model.

2.8 Conclusion

The research provided detailed explanation about the importance of memory and motivation in the achievements of third year pupils. This chapter is devoted to the empirical part of the whole work which tackled the impact of memory and motivation on third year pupils in their learning performance. In the theoretical and practical field, the research used three research tools (triangulation): observation, interview, and questionnaire to gathered informations that emphasized the two hypotheses which represented at the beginning. Through the analyses of the three research instruments, we found that the psychological aspects (memory, motivation) has an important impact whether in failure or succeed pupils and also the role they play in their learning and achievements.

General Conclusion

GENERAL CONCLUSION

The pupils' brain has to store an ocean of information that is received from their teachers and instructors. Those who have a strong memory tend to be successful academic performers not only because they master the ability to recall the needed information, but also because they can analyze this information in the best way possible to get the highest degrees. In the same line of thought, academic success always has been linked to intelligence and pupils' high cognitive abilities which is usually a genetic trait, this prevalent belief contradicts the fact that humans can change, improve and evolve themselves. On the other hand, it is well known that motivation is a crucial variable in the teaching-learning process, thus an increase in motivation leads to an increase in pupils' productivity.

For the sake of investigating how motivation impacts pupils' memory and their cognitive performance, the research was divided into two chapters. The first one was devoted to representing a detailed theoretical literature review about motivation and memory by submitting definitions of the tackled variables, their types, how they work, and the main problems and causes of memory suspension. The second chapter was dedicated to covering the conducted exploratory case study and the analysis of the data collected by (the classroom observation, the pupils' interview, and teachers' questionnaires).

However, the analysis of the main findings has confirmed the first hypothesis of this research "Third year pupils may be affected by some psychological aspects, most notably memory and motivation", thus the third year of high school pupils are exposed to the danger of some psychological disorders like stress and anxiety because of the huge pressure they receive and the lights are spotted on them, in such a case pupils turn to be demotivated and lose their passion of pursuing their goals, as a result, their memorization abilities will decline, in fact so much damage may occur in the level of the brain like memory shortage, mental blockage, and lack of concentration. Furthermore, the second hypothesis "Third year pupils may face some problems and difficulties that can obstacles their academic achievement «has been also confirmed, whereas according to the research outcomes, pupils may highly get affected by the psychological interventions they receive from their surrounded environment in general

and lack of motivational support in particular, therefore personal problems can cause several issues not only concerning losing the moral support but also memory disturbance, hence pupils who are suffering from personal problems also suffer from weakness of memory and forgetting information.

In the end, a set of recommendations and suggestions are mentioned to help third year pupils prepare themselves appropriately for their final exams by enabling them various effective strategies and techniques for revising and self-controlling, also several suggestions were given for teachers to help them ameliorate their in-class performance and bettering their relationship with pupils, and last but not least a series of advice was directed for the parent of BAC pupils to sensitize them of their role in helping their children succeed in their academic career.

As no piece of study is perfect, the present research has faced some obstacles prevented it from being idealistic. In the first place, the researchers don't have a good experience and knowledge of how to conduct a scientific research; consequently, they found difficulty to get access to reliable resources. Secondly the questionnaire used in this survey was conducted on a small sample (only 10 teachers), meanwhile a quantitative tool as questionnaire should be designed for a large sample. Therefore, the operation of questionnaire conduction and analysis should have included more participants. For those who would like to make further extent of this study, although the research has reached its objectives; using the focus group method for pupils would be more advantageous and helpful to gain reach information and cover different perspectives.

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Appendices

TEACHERS QUESTIONNAIRE

QUESTIONNAIRE ABOUT BACCALAUREATE STUDENTS

This questionnaire is meant for a research to identify the impact of motivation and memory have on third year secondary school students. I will be grateful if you contribute in this study by completing the attached questionnaire. All the information will be kept confidential. Please, be as candid as you can since there is not right or wrong answer.

SECTION ONE: PERSONAL INFORMATION

1/ Gender:

- Male Female
- 2/ Numbers of years in teaching third year classes, please specify
- 2 years to 7 years 7 years to up
- 3/ How many years have you taught in the current secondary school?
- <u>Answer:</u>.....

4/ Do you teach in private school/extra courses besides teaching in public school?

- Yes No
 - If YES, do you notice any difference in teaching /learning process

5/ What is the subject you are in charge of/ teach??

• <u>Answer</u>:.....

6/please, state your highest academic qualification?

• License degree • Masters degree • Doctorate degree • Others (please Specify):

SECTION TWO: TEACHING APPROACH

1/	What	are	the	steps	you	go	through	to	plan	your	lessons?
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4/ Do you assess your learners:

a- At the end of each lesson. b- at the end of each Unit. c- At the end of the term (test paper)?

5/ During Covid-19, what are the changes that occurred in the syllabus (in the yearly distribution or the program)?.....

6/ what are the difficulties you encounter with these changes?.....

.....

SECTION THREE : STUDENTS LEARNING EXPERIENCE

$1/\ensuremath{\left }$ What are the major difficulties that third year students face all along the
school year?
Answer:
2/ How do students interact during the lesson?
Answer:

3/ During the session, what are the activities that attract students? Answer: _____ 4/What are the strategies you use to motivate the students during the learning process? Answer:.... majority 5/Do the of students excel memorizing in subjects?..... comprehension 6/Do the majority of students excel in subjects?..... During Covid-19 period, how did students deal with the different 7/ changes?.....

.....

8/ Which impact has these changes on their academic studies?.....

Thank you for your Honest answers

استبيان حول طلبة البكالوريا

يهدف هذا الاستبيان إلى إجراء بحث لتحديد تأثير التحفيز والذاكرة على طلاب الصف الثالث الثانوي. سأكون ممتنا إذا ساهمت في هذه الدراسة من خلال ملء الاستبيان المرفق. ستبقى جميع المعلومات سرية. من فضلك، كن صريحًا قدر الإمكان.

القسم الأول: معلومات الشخصية

1/ الجنس:

- ذكر الثثى
- 2/ سـنوات خبرة في التدريس الصف الثالث الثانوي:
- 2 سـنوات إلى 7 سـنوات 7 سـنوات و ما فوق
 - 3/ منذ متى وأنت تعمل مع المدرسـة الحالية؟:
 - <u>الإجابة</u>:

4/هل أنت موظف(ة) في أي مدرسة أخرى غير هذه المدرسة (مدرسة خاصة / دورات إضافية):

•نعم •لا

• إذا كانت الإجابة «نعم"، هل تلاحظ أي اختلاف في عمليات التدريس / التعلم؟

.....

5/ما هي المادة التي تُدرسـها / تُدرسينها؟: •<u>الإجابة</u>: 6/من فضلك ، اذكر(ي) أعلى مؤهل أكاديمي لديك؟ • أخرى (يرجى • الدكتوراه • الماجستير • درجة ليسانس التحديد): القسم الثاني: منهجية التعليم كماهي العمليةالتي تتبعها من أجل تخطيط الدروس لطلاب البكالوريا ?1الإجابة: 2/ما هي طرق التدريس التي تستخدمها لتدريس الطلاب في صفك؟ الإجابة 3/ / ما هي العقبات التي تواجهك لجعل الدرس واضحًا وفي متناول جميع طلابك؟ إجابه 4 /هل تقيم المتعلمين لديك؟ أ- في نهاية كل درس. ب- في نهاية كل وحدة. ج- في نهاية الفصل (ورقة اختبار)؟ 5/خلال فترة كوفيد، 19 ما هي التغييرات التي حدثت في المنهج أو البرنامج؟ الإجابة:

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5/هل يتفوق أغلبية الطلاب في مواد الحفظ ؟
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٥ (هن يكوي الصارب في هواد المهم العلمية .
الإجابة:
7/في فترة كوفيد 19 ، كيف تعامل الطلاب مع هذه التغيير ات؟
الإجابة:
8/ما هو تأثير هذه التغييرات على دراستهم الأكاديمية؟
الإجابة:

شكرا لكم على مصداقية إجاباتكم

PUPILS' INTERVIEW

1/how you feel when you think about the bac exam?

2/how you manage your stress/ anxiety towards thinking about this important academic event?

3/does your teachers were motivating and preparing you psychologically and academically for the bac exam?

4/ how did you choose the branch you are studying?

5/ in which way you memorize your lessons?

6/how do you manage the preparation of comprehensive modules?

7/ what you think about the trend of relaying on the private remidial schools?

8/ forgetting information is the worst thing any condidat can face, have you experienced this issue during tests and how you restore the forgotten information?

9/ what was the most difficult personal experience you lived this year? And how it impacted on your academic studies

10/ some students assumes that the baccalaureate degree can be achieved by luck, what do you think about this assumption ?

Abstract

The research aims to investigate the important of memory (memorization) and motivation in the achievement of Third year pupils and the possible problems related the both terms: The case of Third Year Secondary Pupils at Maliha Hamidou, Tlemcen and Bou-Azza Miloud, Maghnia . The results revealed that psychological aspects play an crucial role and have a significant impact on pupils' learning especially for pupils third grade whether in positive or negative way . In addition the findings proved that the cognitive processes as memory and motivation are strongly linked to pupil's education, helping them to improve their performance and their academic achievement.

Key words: Memorization, Motivation.

الملخص

يهدف البحث إلى تقصي أهمية الذاكرة (الحفظ) والتحفيز فيالتحصيل العلمي لدىالتلاميذ المقبلين على اجتياز امتحان شهادة البكالوريا والمشكلات المحتملة التي يمكن أن يواجهونها سواءا كانت نفسية أو ذهنية. تم اجراء دراسة استقصائية على تلاميذ الصف الثالثثانوي بمليحة حميدو وبو عزة ميلود بمغنية تلمسان. أظهرت النتائج أن الجانب النفسييلعب دورًا حاسمًا وله تأثير كبير على الاداء الذهني و التحصيل العلمي خاصة لتلاميذ الصف الثالث ثانوي. بالإضافة إلى ذلك ، أثبتت النتائج أن العمليات المعرفية مثل الذاكرة و التحفيز ترتبط ارتباطًاو ثيقًا.

Résumé

La recherche vise à investiguerl'importance de la mémoire (mémorisation) et de la motivation dans la réussite des élèves du Baccalauréat et les éventuelsproblèmesliés aux deuxtermes : Le cas des élèves de la 3e annéesecondaire à Maliha Hamidou, Tlemcen et Bou-Azza Miloud, Maghnia. Les résultats ont révélé que les aspects psychologiques jouent un rôle crucial et ont un impact significatif sur l'apprentissage des élèves, en particulier pour les élèves de troisième année, que ce soit de manière positive ou négative. De plus, les résultats ont prouvé que les processus cognitifs tels que la mémoire et la motivation sont fortement liés à l'éducation des élèves, les aidant à améliorer leurs performances et leurs résultats scolaires.

Mots clés: Mémorisation, Motivation.