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**Rote Vs Meaningful Learning in EFL Classes: Perspectives and Beliefs**  
**A Case of Master One Students, Department of English, Guelma University**

**A Dissertation Submitted to the Department of Letters and English Language in Partial  
Fulfilment of the Requirements for the Degree of Master in Language and Culture**

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## Dedication

*This work is dedicated to the souls of*

*My paternal grandfather, Zizou Belouahem.*

*My beloved grandfather, Idris Sbaghdi.*

*May God have mercy on their souls.*

*To my father, Abdelhalim and mother Nehla, my guide for success and happiness in life.*

*May God protect them.*

*To my lovely brother Fadi and my lovely sister Tessnime. The candles of our home.*

*To all my precious aunts and uncles with no exception.*

*To my best friend who has always been there for me since our childhood: Amir Loucif.*

*To the exceptional friends with whom I shared special moments: Khalifa Chabi,*

*Zinou Aberkane. I will always appreciate their presence.*

*To the unforgettable best friend and dearest sister: Imen Oulab.*

*To the newest friend Djoumana Boughazi, who encouraged me to fulfil this work.*

*Thank you all for being such nice part in my life.*

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## **ABSTRACT**

The present study aims at investigating teachers' and students' attitudes toward the dichotomy rote vs meaningful learning of English as a foreign language classes at the department of letters and English language at Guelma university. The goal of any educational system is to generate learners with some specific thoughtful skills that would allow them to obtain and transfer knowledge to real life situations and solve the various life problems. More specifically, students in higher education are expected to be independent learners and follow the guidance of their teachers. However, students at Guelma university and over their academic years have developed the habit of relying on teachers' handouts and view the process of learning as a superficial one. Such habits and such oversimplification can be considered as a major reason behind creating passive learners who cannot neither use the knowledge meaningfully nor think critically. In order to achieve the aforementioned aim, this research opted for a quantitative method in that two different questionnaires were distributed to eight teachers and forty-six students. The results obtained from the analysis of the questionnaires showed that both teachers and students are in favour of the implementation of meaningful learning because of its effectiveness and advantages in giving the freedom of thoughts, analyses, criticism, and creativity. Unlike rote learning which limits students in a circle from of learning, that is, memorizing, practicing, and eventually forgetting. For this reason, it is recommended to adopt a teaching method that calls for a learner- centred atmosphere and leaves-the space for students' participation where the teacher is not a spoon feeder anymore but a guide.

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## **Introduction**

The mission of education is to arm learners with various skills that would allow them to accomplish and solve multiple learning as well as real life problems. A good educational system is the one that is characterized by effective implementation of teaching methods and techniques that generate active learners who are able to use their knowledge meaningfully and think critically. Many empirical researches are conducted in the quest of determining the effectiveness of teaching and learning approaches, methods, and techniques. Through various comparative studies, the issue of rote learning versus meaningful learning has been highly debated among researchers due to the differences between the two types of learning. It has been noticed that each type of learning has its uniqueness in applying some specific cognitive skills. Indeed, cognitive skills play a major role in the process of learning. They are considered as a focal point in determining the extent of learning efficiency reached by learners. Henceforth, the different cognitive skills are required in the process of learning, and there will be a poor learning performance in the absence of those skills. However, the emphasis on a particular mental skill and the way of using and applying this specific skill makes the difference between types of learning.

### **1. Statement of the Problem**

Learning is a process where the use of several cognitive skills is compulsory. Based on this idea, many learning types, methods, and strategies have been developed. In this context, university students are expected to develop a specific level of awareness in which they need to rely on their personal abilities with the guidance of their teachers, especially recently where modern education moves toward learner-centeredness which leads the system to employ a constructive theory or what is known as meaningful learning. This latter aims at establishing a long-term understanding by creating a link between new information and the pre-existed one.

In fact, university students are facing many difficulties in the process of learning, especially when it comes to the application and the elaboration of their knowledge practically. This situation can be due to the rote strategy that is followed by them. Mainly, their perception about learning is restricted to memorization and reproduction only, without any further analysis or deep understanding of the content. Such a situation leads to short-retention and abates students' critical thinking. Likewise, students at the department of English at Guelma university have developed the habit of relying on teachers' handouts and consider learning as a surface process; hence, a habit formation. Such type of learning, which is based on memorizing and regurgitating others' works and products without any deep understanding of the content, becomes the most adopted way of learning among learners. Rote learning creates passive learners who are incapable of using knowledge thoughtfully in order to solve the various problems in the process of learning, i.e. unable to analyse, evaluate, synthesis, and, interpret the material given to them.

For that sake, this study aims at investigating both teachers and students' attitudes toward two opposing types of learning which are rote and meaningful learning, and stresses the importance of adopting a suitable type of learning that leads to the fulfilment of learners' objectives and needs.

## **2. Aims of the Study**

The present research has the following aims:

- 1- It tries to make clear the differences between rote and meaningful learning.
- 2- It attempts to give an idea about the role of meaningful learning in establishing long term understanding unlike rote learning.
- 3- It seeks to explore teachers and students' attitudes towards learning tendencies in general, and the dichotomy rote vs meaningful learning in particular.

### **3. Research Questions**

This study aims at finding answers to the following questions:

1. Is meaningful learning more beneficial than rote learning in learners' journey of meaning-making?
2. Are the students aware about the role of meaningful learning?
3. To what extent can meaningful learning create independent, self-sufficient learners?

### **4. Research Hypotheses**

The research hypotheses of this study are as follows:

1. There is a teachers' negative attitude towards rote learning and a positive one towards meaningful learning.
2. There is a students' negative attitude towards rote learning and a positive one towards meaningful learning.

### **5. Population and Sample of the Study**

Our target population consists of students and teachers at the department of English at Guelma university. The first sample contains 46 first year master students who enrolled in the academic year 2019/2020, while the second sample contains eight teachers-

### **6. Data Gathering Tool**

To verify the validity of the research hypotheses, a quantitative method has been chosen. More specifically, two different questionnaires are administered to the samples of the study. The first questionnaire is distributed to first year master students of the department of letters and English language at Guelma university. The second one is dispatched to the teachers at the same university department. The two questionnaires are served as an exploratory tool that investigate both teachers' and students' ways and habits in dealing with lectures and the teaching /learning process.

## **7. Structure of the Dissertation**

This dissertation is divided into three main chapters. The first two chapters are devoted to the theoretical part that deals with the literature review of rote learning and meaningful learning and their distinguishing features. The third chapter constitutes the practical part of the study, which analyses data generated from teachers and students' questionnaires. In the framework of this part, research limitations and recommendations are tackled.



## **Chapter one**

### **Rote Learning**

#### **Introduction**

#### **1.1. Definition of Learning**

#### **1.2. Behaviourism Learning theory**

##### **1.2.1. Classical Conditioning**

##### **1.2.2. Operant Conditioning**

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#### **1.3. Definition of Rote Learning**

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##### **1.4.1. Repetition**

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#### **1.5. Advantages of Rote Learning**

#### **1.6. Disadvantages of Rote Learning**

##### **1.6.1. Recalling vs Understanding**

##### **1.6.2. Limitation of Rote Learning**

#### **Conclusion**

## **Introduction**

Individuals are continuously engaged in the process of learning, either consciously or unconsciously. The existence of learning is always present, whether in the academic life which takes the formal context, or even in the daily life which represents the informal context of learning. For this reason, the concept of learning has been one of the most interesting and controversial topics among researchers. Therefore, in the modern world the interest of researches and researchers has been shifted from the point of “what learners should learn” to “how learners learn”. This shift shows that the content material is no longer that crucial point in comparison with the allocation of the cognitive processes that learners apply in their learning process.

The present chapter, aims at defining learning from different perspectives and sheds the light on behaviourism as a theory of learning. The chapter also examines rote learning by providing different definitions and features about this type of learning. Finally, an overview which contains advantages and disadvantages that concern rote learning method is tackled.

### **1.1. Definition of Learning**

Learning is considered as a complex process, that is why it is hard to provide a precise definition for learning. As such, there is no universal definition of learning till now. Learning can be defined from different perspective and beliefs. According to Watkins et al (2007, p.11), learning is about constructing meaning with the ability of explaining circumstances and establishing knowledge or comprehension. Furthermore, Pritchard (2009, p.1) points out that Learning is the process of gaining more knowledge, or learning how to do something. But learning is not that simple for those who are spending more time in experimenting and investigating the concept. For instance, Sternberg (1995, p.236), states that learning is any "permanent change in the behaviour, thoughts or feelings of an organism that results from

experience". In other words, learning is as any behavioural change that is gained from the direct participation of individuals in particular activities during their lives. In the same view, Schunk (2012, p.3) defines learning as "an enduring change in behaviour, or in the capacity to behave in a given fashion, which results from practice or other forms of experience". Hence, Learning involves change, endure over time, and occur through experience.

- Learning involves change: For Shunk, learning takes place when the individuals have the ability to change their old styles of dealing with things by a new style, which is more fruitful. In brief, it is an adaptation of a particular mode that is more appropriate in dealing with different tasks.
- Learning endures over time: the change which comes with the process of learning should be permanent, i.e, learners must keep what they have learned in their minds for the whole of their lives without forgetting or dismissing it from their memory.
- Learning occur through experience: In this criterion, Shunk states that there is mutual relation between the process of learning and the environment. Undoubtedly, the environment plays a major role in influencing learning, because learners are supposed to gain their schema trough the exposure to their environment.

Jean Piaget (1953) has another view about learning, where he considers that learning is based on two major basics that are:

- **Organization:** According to Piaget (1953, p.7), organisation is "a cohesive, repeatable action sequence possessing component actions that are tightly interconnected and governed by a core meaning". In other words, organization defines how the knowledge could be constructed through some particular cognitive abilities, in which information and experiences are combined together in the human minds to form what is known as schema.

- **Adaptation:** It refers back to the tendency of individuals to adapt to the environment.

It is divided in two sub-elements that are:

- **Assimilation:** Huitt and Humell (2003, p.1) declares that "assimilation is the process of using or transforming the environment so that it can be placed in preexisting cognitive structures". To say it differently, assimilation is about the use of preexisting schema in order to deal with new situations.
- **Accommodation:** Pichard (2009, p.3) defines accommodation as "the process whereby mental structures have to be altered in order to cope with the new experience which has contradicted the existing model". Simply, accommodation is about the adjustment of the existing schema and replacement of it by new one, which is more suitable when dealing with new objects or situations.

## 1.2. Behaviourist Learning Theory

Behaviourism is a scientific learning theory that emerged in the early twentieth. From its name it can be concluded that this theory views the process of learning from a behavioural perspective. Simply, the behaviourist theory believes in the observable change, and it denies the role of any other mental process in learning (Pritchard, 2009p.5).

The behaviourists exclude the mental process in their examination of learning, due to the fact that they conceive that psychology is a science. Therefore, psychology must follow a scientific approach, i.e. it should only consider what is observable and measurable in order to be objective. For this reason, the behaviourist theory argues that the inclusion of the cognitive process is considered as unsystematic, in catalyst to the argument which says that science doesn't deal with the abstractness. Boeree (2006,4 quoted in Woolard, p.19) supports the previous idea when he states that, " behaviourism, with its emphasis on experimental methods, focuses on variables we can observe, measure and manipulate, and avoids whatever

is subjective, internal and unenviable". Woolard (2010, p.1) adds that

Learning in the context of behaviourism can be defined as the acquisition of a new behaviour or modification of behaviour as a Result of teaching, training or tutoring. Learning is demonstrated by the behaviour of the learners in their actions or reactions to further stimuli

In other words, it is noteworthy to say that the behaviourists consider the behavioural change of learners with the association of their external environment as the only two variables that could determine if the process of learning does really occur.

The behaviourist theory is divided into two types of conditioning. The first one is called the classical conditioning, while the second one is named as the operant conditioning.

### **1.2.1. Classical Conditioning**

Classical conditioning is considered as the first behavioural learning theory, which is originated by the Russian psychologist Ivan Pavlov. Classical conditioning is also known as pavlovian conditioning. According to Moreno (2010, p.156), this theory of learning refers to the learning through association, in which two automatic natural responses are combined together to formulate new stimuli. Pritchard (2009, p.7) states four stages in the process of realising the classical conditioning theory. The first element in the basics of classical conditioning theory is the **Acquisition**, which is considered as the first stage in the procedure of learning a particular conditioned response. Second, **Extinction** that alludes to annihilation or the extinguishment of conditioned response, which is caused by repetition. **Generalization** comes as the third stage in the theory. It can be defined as the act of reacting to a new stimulus with previous conditioned response which could be similar to the new one, for example If a child is bitten by a dog, the child may fear not only that particular dog, but all dogs. Finally, **Discrimination** is the last stage in the classical conditioning theory and it is the

antithetical of generalisation. In this stage, individuals discover how to perform a specific conditioned response to one stimuli, but not to another one which could be similar.

### **1.2.2. Operant Conditioning**

Operant conditioning is the second behavioural theory, which is emerged in the beginning of the 1930s by the American psychologist Burrhus Frederic Skinner (Schunck, 2012, p.88). According to Pritchard (2010, p.7), operant conditioning is "the most important type of the behaviourist theory". It is to say, the operant theory is considered as more flexible than other behavioural theories. Hence, it goes beyond the stimulus response and it is the only behavioural theory which emphasises the importance of consequence relationship, unlike any previous behavioural theory such as the classical conditioning theory. Pritchard adds that the operant conditioning theory has two central principles. **Reinforcement** refers to powering the desirable behaviour through rewards to establish some particular behaviour in the repertoire of the individuals, or to make that behaviour appears again. Punishment which aims at decreasing the likelihood of the undesirable behaviour. It tries to reduces the unpleasant behaviour or response for a particular stimulus via presenting unfavourable outcome after each unwanted performance or behaviour.

### **1.2.3. Behaviourism and Rote Learning**

According to Lim, Tang and Core (2012, p.1040), rote learning is considered as "a method of instruction characterized by concepts of systematic repetition". In other words, rote learning is related to the discipline of "drill and practice", which is based on an absolute rehearsal or what is known as learning by heart. That is, the repetition of a single item over and over constantly is required until the item is engraved in the learner minds and acquire the new knowledge by rote.

"Drill and practice" is considered as one of the main principals of the behaviourism theory. Lim, Tang and Core (2012, p.1041), claim that "Drill and practice" concentrate on imitation and practice to form strong habits. This principle can be related to behaviourist belief about learning through repetition that leads to an automatic, effortless response. Therefore, it could be concluded that rote learning is a model of the behaviourist approach that includes learning information through repetition ("PHD", 2017, para.1).

### **1.3. Definition of Rote Learning**

According to Cambridge International Dictionary of English (1995, p.1235), that defines rote learning as the follow "to learn something by rote, or rote learning means learning something in order to be able to repeat it from memory rather than learning it in order to understand it". More deeply "Rote learning is understood as mechanical use of the memory without necessarily understanding what is memorized; and learning by rote, it means learning in surface level" (Li, 2004, p.52). In the same view, Sinhaneti and Kyaw (2012, p.5) define rote learning as "a cultural preference and an effective way of getting basic knowledge in the early stages of language learning".

From the previous definitions, it can be said that rote learning strategy is nothing but a "surface" type of learning that is based on repetition leading to create habit formation for the learners. Rote learning is a passive process which is based on storing new information for later use without any further analysis. Also, this type of learning is far away from creating and formulating deep understanding of the subject matter. Furthermore, it does not involve any process that help learners to understand, analyse or select the information they learnt. It is considered as an effective type of learning only when it comes to acquiring basic type of knowledge. Hence, it can be said that rote learning is a method that involves memorization of information without inherent meaning.

## **1.4. Features of Rote Learning**

Li (2004, p.9) considers that rote learning strategies involve three concepts repetition, memorizing and practice. The repetition in this context is referred to the way of getting the knowledge. Whereas, memorization is about storing and retrieving the information. Finally, practice is contributing to the use of knowledge in a particular manner.

### **1.4.1. Repetition**

Repetition is the act of doing, saying and performing something several times. Wenden's (1991, p.21) defines repetition "as imitating a language model, including overt practice and silent rehearsal". Gairns and Redman (1986, p.93) pointed out that repetition in the rote learning method tackles the following form:

- To read silently or aloud
- To write down the items (more than once)
- To learn in list forms or cards (can be taken anywhere and studied at any free moment)
- To use typical examples
- To find translation equivalents
- To find definitions
- To group paired items
- To memorise irregular verbs

### **1.4.2. Memorization**



According to Hornoby (2010, p.959) the word “memorizing” is derived from the word "to memorize" which means to learn something carefully in order to gain the ability to remember it. Wang (2009, p.82) defines memorization as " a cognitive process of the brain at the meta-cognitive layer that establishes (encodes and retains) and reconstructs (retrieves and decodes) information in long-term memory". To say it simply, memorization refers to two major concepts that are retaining and retrieving.

Wu (2014, p.295) states that rote learning can be viewed as "cyclical repetition technique", which refers to the process of repeating a particular item several times in a continuous manner in order to learn it and store it in memory. To illustrate the idea, rote learning is attributed to the capacity of memorize information that does not contain intellectual depth, i.e, thoughtful meaning. Furthermore, if the recycling of the knowledge is abandoned, many new items that are learned will be forgotten (Schmitt, 2000, p.137) states that. As a consequence, the new knowledge that is gained by rote method cannot be stored in the long-term memory since it can be easily forgotten after the rejection of the repetition.

Moore (2000, p.1) points out that rote learning is a method which includes both repetition and memorization. It is noteworthy to mention the fact, which says that rote learning is related to the two processes that are storage and retrieval. However, storage and retrieval are associated with the mental process that is known as “Memory”.

#### **1.4.2.1. Definition of Memory**

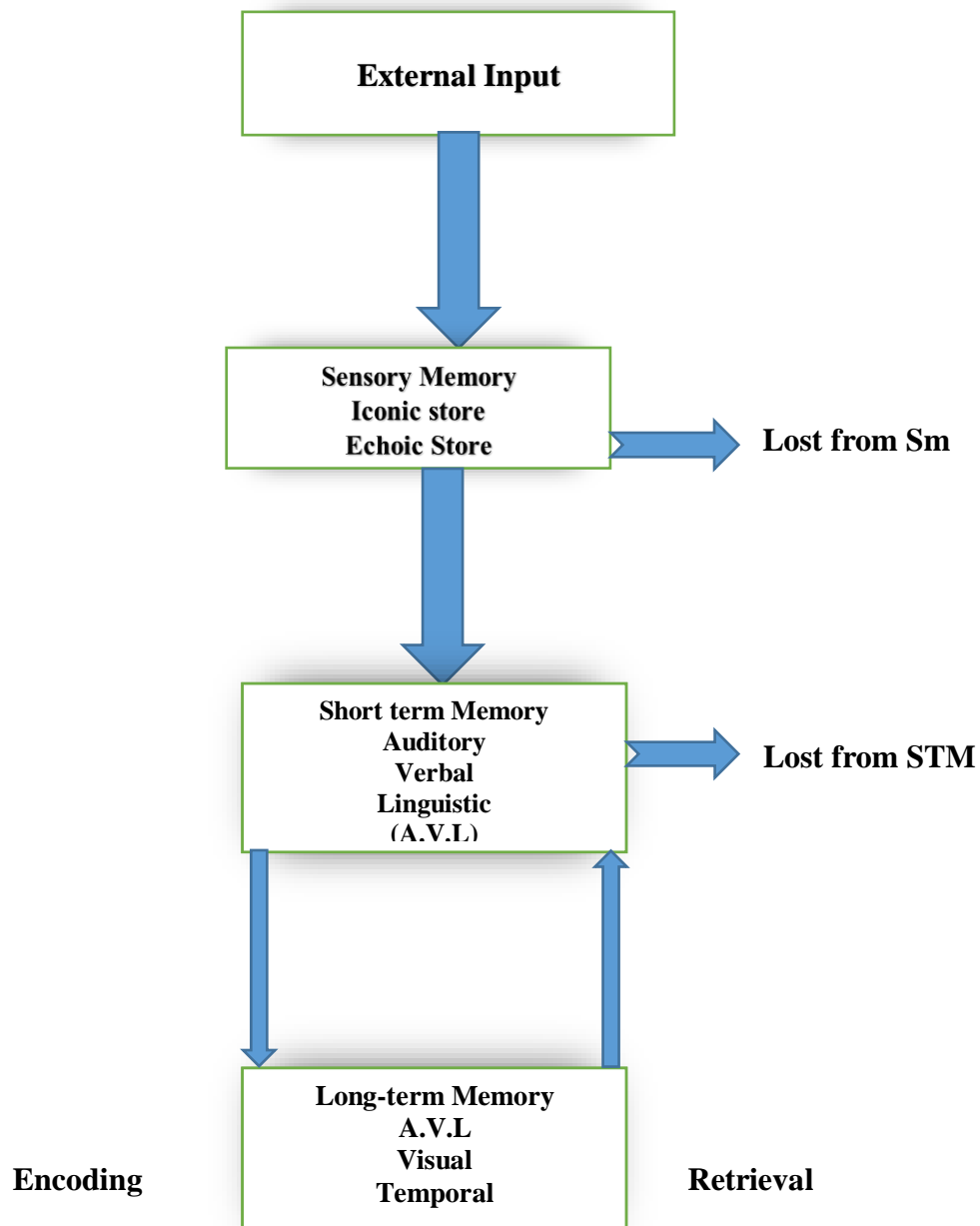
The term memory is generally considered as the cognitive process whereby past events and experiences are remembered. Wang (2009, p.81) defines memory as "the physiological organs or networked neural clusters in the brain for retaining and retrieving information". Similarly, Niswati (1993, p.7) believes that memory is “the mechanism through which all information is stored and retrieved”. However, deeper analyses are suggesting that memory is not that

simple system, but a complex one which involves multiple cognitive processes. Sumrall and Doss (2016, p.24) regard memory as "multiple forms and types of brain operation". Such definition entails that memory is a mental system which is assembled with many other secondary systems such as sensory memory which is deemed as limited capacity of storing information for short period (Stenberg, 2012, p.193). While short term-memory has been viewed as a limited capacity of storing information, this latter remains for longer periods than in the sensory one. However, long term-memory has "a very large capacity of storing information for very long periods" (Stenberg, 2012, p.193).

#### **1.4.2.2. Atkinson and Shiffrin's Model**

In the year of 1968 Richard Atkinson and Richard Shiffrin provided a very crucial and accepted model of memory system. They divided the memory system into three major memory stores that are: *the sensory store, the short-term store, and the long-term store*. They also demonstrated that each type of these memory stores is different from the other terms of capacity, function, and duration.

**Figure 1.1: Atkinson and Shiffrin's Multi-store Model. Adapted from *Human Memory: A proposed system and its control processes*, R.C. Atkinson and R.M Shiffrin (p.93), 1968**



#### 1.4.2.2.1. Sensory Memory

It is the first memory store that is stated in the model of memory which is provided by Atkinson and Shiffrin. As its name suggests, this type of memory is pertaining to the human senses. This system of memory has the function and the responsibility of receiving and storing the different external stimuli from the environment of individuals whether consciously or unconsciously. According to Atkinson and Shiffrin (1968, p.92), each external stimulus is immediately taken and stored in "the appropriate sensory dimension", which could be visual (**Iconic**) or auditory (**Echoic**). **The iconic** store is that part of the sensory memory that is directed to store and represent the visual information that could take the form of images and icons. Hence, Anderson (2015:126) defines the iconic store as "a memory system that can effectively hold all the information in the visual display". But, Stenberg (2012, p.194) states that the capacity of the iconic store is very limited because it could only hold the information for very short period of time. He also adds that "this information may be transferred to another store. Or it may be erased" (197). **The echoic** store is the store which is responsible for the operation of saving the auditory information that takes the form of sounds. Unlike the iconic store, the echoic store does not encode the different sounds randomly and transfer them to another stage of memory without control process and selection. This control process and selection are known as **attention** which is defined by Moreno (2010, p.198) as "the process of allocating cognitive resources to stimulus or task at hand".

#### **1.4.2.2.2. Short-term Memory**

According to Atkinson and Shiffrin (1968, p.92), short-term memory is the second stage in the memory model. The information is sent to the short-term memory after the process of examination that is allocated at the level of the sensory memory where the input is directed to the right sensory. Nonetheless, short-term memory has also a limited storage of information in which the information could remain only for short period of the time, but longer than the sensory memory. As it is stated in in the figure 2, short term memory involves A-V-L store,

i.e. auditory, verbal, and linguistic store. Moreover, the short-term memory store has the ability to hold from five to nine items. This means that humans' short memory has the capacity to hold five to nine items at once. These limits are introduced by the psychologists Miller (1956 as cited in Mathy, 2011, p.346) as *chunk* which is defined by Bellezza (1949 as cited in Matlin, 2003, p.80) as "a well-learned cognitive unit made up of small number of components representing a frequently pattern". It is to say, chunks are groups of items that are collected together in order to ameliorate short memory performance. To be more explicit, if an individual has a phone number that is comprised from eight numbers, it would be easy for him to memorize and remember these numbers through chunking, i.e. two by two.

#### **1.4.2.2.3. Long-term Memory**

It is the last memory store according to the model of Atkinson and Shiffrin. In comparison with the two aforementioned stores, long term memory is considered as the largest store in the terms of capacity of storage and duration of storage. Goldstein (2011, p.149) defines long term memory as:

the system that is responsible for storing information for long periods of time. One way to describe long term memory is as an "archive" of information about past events in our lives and knowledge we have learned. What is particularly amazing about this storage is how it stretches from just a few moments ago to as far back as we can remember.

To say it differently, the capacity of long term memory could be unlimited, i.e. long term memory is a depository in which the information is stored in the mind in an indefinite way. Hence, the information in long term memory might be stored for life time. Atkinson and Shiffrin (1961, p.93) state that "information in the long-term store is relatively permanent (although it may be modified or rendered temporarily irretrievable as the result of other incoming information)".

### **1.4.3. Practice**

Practice is a systematic training which involves many strategies such as: imitation, repetition and attention. Therefore, practice refers to the strategies that are related to the storage and retrieval of the language. According to Sprenger (2003, p. 20&33), practice or rehearsal refer to the use of information after it is introduced into working memory through senses. Or, when it is retrieved from the long storage, which refers to the place where memories are kept. This indicates that the more learners repeat something the more they have the ability and the access to remember it.

### **1.5. Advantages of Rote Learning**

According to Slavin (2006, p.190), it is impossible to determine the efficiency of any type of learning without considering the advantages and disadvantages that concern that type of learning. Hence, many positive views about rote learning strategy are stated.

Gairns & Redman (1986, p.93), point out that:

In the early stages of language learning, repetition gives the students the opportunity to manipulate the oral and written forms of language items, and many learners derive a strong sense of progress and achievement from this type of activity. For this reason, it can be very valuable.

This reveals that repetition exists from the preliminary phase of language learning and it is considered as a fundamental element in achieving and gaining the knowledge.

Biggs (1998, p.726-727) also claims that to master characters thoroughly one has to deep understand how does this system functions. It is to be borne in mind that characters are learned by virtue of two major principals. The first principle necessitates the contribution of

the five organs which all collaborate for an effective understanding of the characters: the eyes enable us to see how a particular character is formed or shaped. The ears provide us with the ability to hear how a particular sound is uttered. The hand is a means to write properly the shape. The mouth is an organ that helps in writing the sound. Equally important, the mind has in all that a fundamental role to play which is the ability to think. The second principle, however, is firmly related to contextualization. Phonemes are not organised arbitrarily to form words; words are not organised arbitrarily to form sentences. The distribution and organisation is done according to rules. Needless to say, then, that language is rule governed. Every word in a sentence occupies a certain slot pattern to help not only in forming a grammatical sentence but a thoughtful one as well. The learner is, thus, required to comprehend and produce sentences that are not only grammatical in nature but appropriate as well.

In the same respect, Nation (2001, p.74&76), stated that:

Repetition is essential for vocabulary learning because there is so much to know about each word that one meeting with it is not sufficient to gain this information, and because vocabulary items must not only be known, they must be known well so that they can be fluently accessed. Repetition thus adds to the quality of knowledge and also to the quantity or strength of the knowledge.

The positive beliefs about rote learning suggest that this type of learning is essential and effective in constructing knowledge. The researchers who support rote learning strategy are claiming that rote learning is not a total meaningless repetition, however, it contains some features that could assess the learners' understanding.

### **1.6. The Disadvantages of Rote learning**

Despite the positive views about rote learning, many researchers are still regarding rote

learning as ineffective way of learning. Rote learning for them is commonly perceived as surface type of learning, which supports memorization without significant meaning and eventually creates passive learners.

### **1.6.1. Recalling vs Understanding**

Rote learning is one of the most debateable issues in the academic field. Many questions are raised about the real aim of this method, whether it's aim is only about remembering or achieving the process of understanding. If the aim of this strategy is to memorize and retain information, then the rote learning could be beneficial at this level. However, if the aim is to transfer what is learned to a new situation in order to solve problems, then rote learning cannot be useful in this case. In the light of this controversy, Mayer (2002, p.277), has initiated an experiment with one participant who is named Becky. Becky followed the rote learning strategy. She is asked to read a chapter on electrical circuit in a careful manner, and she tried to memorize the maximum of facts. In the procedure of recalling, Becky could remember almost all the facts that are mentioned in the chapter. But when she asked to apply the information that she remembers, she could not use that knowledge in answering the essay questions and transfer her knowledge to solve problems that are required a diagnose. As a result, rote learning provides only the ability of remembering and recalling. While understanding is about evaluating, comparing, analysing and, interfering the knowledge in order to solve the different problems.

### **1.6.2. Limitation of Rote learning**

Rote learning is learning by memorizing rather than thinking and reasoning, but according to Sinhaneti and Kyaw (2007, p.989) "the researcher finds that rote learning is still highly used among EFL learners". Luck and Lin (2007, p.17) consider rote learning as `foolish` type of learning because it is mindless memorization. Furthermore, Lwin is a EFL teacher in



Myanmar school, which is following the rote learning strategy. Lwin declares that “only the teacher used to explain the text and all students need to do along with the class time, just listening and waiting for the correct answer from their teachers and receiving information without affording their own” (Sinhaneti and Lin, 2007, p.990). This indicates that students follow their teachers mechanically and rigidly, i.e. students are not allowed to question and explore facts, they just receive the information from their teachers and try to recall it whenever it is necessarily. According to Biggs (1996, P.47) this type of learners are behaving like `tape recorder` because they are passive learners and their mission is merely a simple memorization and retention. Moreover, rote learning results a convergent thinking due to the role of learners in this case. They just observe and receive the information from their teachers in one way and this make them try to solve the problems in that same original way.

## **Conclusion**

Despite its merits, the behaviourist approach has witnessed certain short comings and defences. In our daily life we do not neglect the role of the environment in shaping our ways of thinking- we listen to others, imitate. Listening and imitation are two indispensable skills but they are not sufficient for a successful learning to take place. Human beings are not, above all conditioned machines. They are endowed with ability to think and reason. In other words, they go beyond sheer memorization. Learning as well as teaching are instable processes. Researchers and psychologists are endlessly attempting to bring new approaches, methods and strategies to improve the quality of both processes. Hence, the need is felt to introduce more self-centred approaches that asses and aid learners to have the ability using different cognitive skills, that surpass simple memorization.

## **Chapter Two**

### **Meaningful Learning**

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### **Conclusion**

## **Introduction**

After the decline of the behaviourist theory, the researches start to examine the field of education more deeply. The interest of researchers and psychologists are turned and directed toward finding more suitable and more fruitful type of learning. Researchers want to introduce a type of learning which gives the ability to learners to achieve an autonomous thoughtful learning in a learner-centred approach atmosphere.

This chapter deals with one of the elements of this work which is meaningful learning. It tackles its theories, definition, phases and principles. Moreover, this chapter sheds the light on critical thinking, as it goes hand in hand with meaningful learning.

### **2.1. Cognitivist Theory**

The years 1950 and 1956 marked the emergence of a new learning theory which is known as cognitivism. Many articles are published by many researches and psychologists about this subject to insert new terms in the field of psychology, such as “concept formation, attention and perception. This change is also named as the cognitive revolution because there was a shift in the behaviourist principles that restrict the process of learning to a mere observable behaviour. According to, Moreno (2010, p.194), the cognitive approach defines learning as "an enduring change in mental structures that occur as a result of interaction of individual with the environment". Unlike the behaviourist theory which neglects the cognitive abilities and consider the mind as a passive organ. The cognitive theory believes on both elements that are the external stimuli (environment) and the internal abilities (the mind).

According to Parker (2015, p.24), cognitivism has a main focus on the direction of symbols, that refer to the personal experiences of individuals. Moreover, he added "these symbolic transformations are guided by mental rules that organize information in a systematic fashion". This signifies that the mind has a major role in paving the way for the systematization and unity of knowledge. In that respect, Ertmer and Newby (2013, p.51)

declare that "cognitive theories stress the acquisition of knowledge and internal mental structure...[they] focus on the conceptualization of students learning process and address the issue of how information is received, organized, stored, and retrieved by the mind".

## **2.2. Constructivist Theory**

Burning et al (2004, as cited in Shunk, 2012, p.299) define constructivism as "a psychological and philo-sophical perspective contending that individuals form or construct much of what they learnt and understand". In other words, in the constructivist theory individuals are allowed to monitor what they have comprehended in an active manner.

According to Jordan, et al (2008, p.55) "constructivism is a natural progression from cognitivism and both are interested in cognitive process". Yet the authors have established a subtle distinction between the two theories when they state that "whereas cognitivism focuses on how information is processed, constructivism focuses on what people do with the information to develop the knowledge". This implies that, in one hand, both cognitivism and constructivism share the same principles, still on the other hand, there is a slight difference between the two theories.

Pritchard (2009, p.17) argues that for constructivists "learning takes place when new information is built into and added onto individual's current structure of knowledge, understanding and skills", i.e. the emphasis here is on the way of constructing the knowledge and how it will be systemized.

Jonas (1991as cited in Ertmer and Newby, 2013, p.55) argues that "constructivists believe that the mind filters input from the world to produce its own unique reality". This reveals that constructivists value personal experiences and world interaction, and consider both of them as favourable elements in assembling and creating personal knowledge as well as understanding, i.e, constructivists support autonomy in building knowledge.

According to Clouston et al (2010, p.18), learning takes place in the constructive process when it is “an active process within the student to construct or reconstruct their knowledge networks and learn to build their own interpretation”. To say it simply, constructivist theory should allow students to think critically, and this latter will result a change in the learners’ ideas and enlarge in their knowledge.

### **2.3. Definition of Meaningful Learning**

Shuell (1998; as cited in Shuell 1990, P.540) considers that "meaningful cognitive learning is an active, constructive, and cumulative process that occurs gradually over a period of time". This shows that meaningful learning has a strong relation with cognitive and the constructivist theories of learning, because it adopts their principals. Shuell (1990) adds that in meaningful learning "learning is not merely an additive process—qualitative, as well as quantitative, changes occur, and qualitative differences are evident in both the substance of what is being learned and in the learning processes most appropriate for acquiring additional knowledge". This entails that meaningful learning is a goal oriented type of learning, which focuses on the quality of information and the performance of learners as much as it emphasises the quantity of knowledge.

Mayer (2002, p. 277) argues that "meaningful learning occurs when students build the knowledge and cognitive processes needed for successful problem sloving". This indicates that meaningful learning has the aim of establishing the knowledge in the mind of learners and make them able to solve problems in various ways.

According to Efendioglu and Yelken (2010, p. 1288), "meaningful learning has been discussed in the literature for over thirty years. It is most commonly described as the intentional connecting of new information to anchored ideas or prior knowledge, particularly if the new knowledge is personally relevant and experiential". In other words, meaningful learning takes place when the new information is purposefully connected within the students

existing knowledge or schema.

## 2.4. Phases of Meaningful Learning

Meaningful learning is a complex process in comparison with another simple types of learning in which recognition and recalling are the basis of learning. Unlike any type of learning, meaningful learning tries to establish deep long-term understanding of the content. According to Shuell (1990, p.541-543), learners in meaningful learning passes through three main stages or phases. These phases are as follows: *Initial phase, Intermediate phase and Terminal phase.*

- **The Initial Phase:** It is merely an additive step. Learners at this phase are exposed to a new isolated piece of information in a specific domain, i.e. many facts are presented to the learners without their relevant context. During this phase many information is supposed to be memorized by learners. After the process of memorization, learners use their previous knowledge or schemata in order to interpret the new data and give meaning to these data. According to Bereiter (1989, p.4), through the schema, learners are being able to make some assumptions such as "A) *the knowledge* [I am learning] has a structure that is more complex than [presently evident]". B)" [I am] going to have trouble judging the importance of information and [it is] better to err on the side of overestimating importance". "C) familiar words may have special meaning in in the [new] domain". To say it simply, learners could use their previous knowledge to change, elucidate and compare the new information.
- **Intermediate Phase:** This phase is more meaningful in comparison with the initial phase. Spiro et al (1988, p.1) claim that at this level of learning learners "must now get it right.....attain a deeper understanding of content material, reason with it, and apply it flexibly in diverse context". This reveals that learners have extended their

knowledge in this step and they begin to learn by doing. Learners at this stage start to use the information that has been acquired in the initial phase, and they try to apply this information in different context and situation for the purpose of solving problems. Therefore, learners will have the ability of understanding, explaining and analysing their knowledge, yet they cannot have a complete autonomous control.

- **Terminal Phase:** as its name suggests, this is the final stage in the process of learning. At this level, integration between knowledge structure and schemata is much better. As a consequence, the performance of learners will be more autonomous, effortless, and automatic. Moreover, Sheuell (1990, p.543) adds that learning in this phase consists either of: "(a) the addition of new facts to pre-existing schemata (i.e, accretion), or (b) increasingly higher level of interrelationship (e, g. where the schemata consist of other schemata rather than facts)".

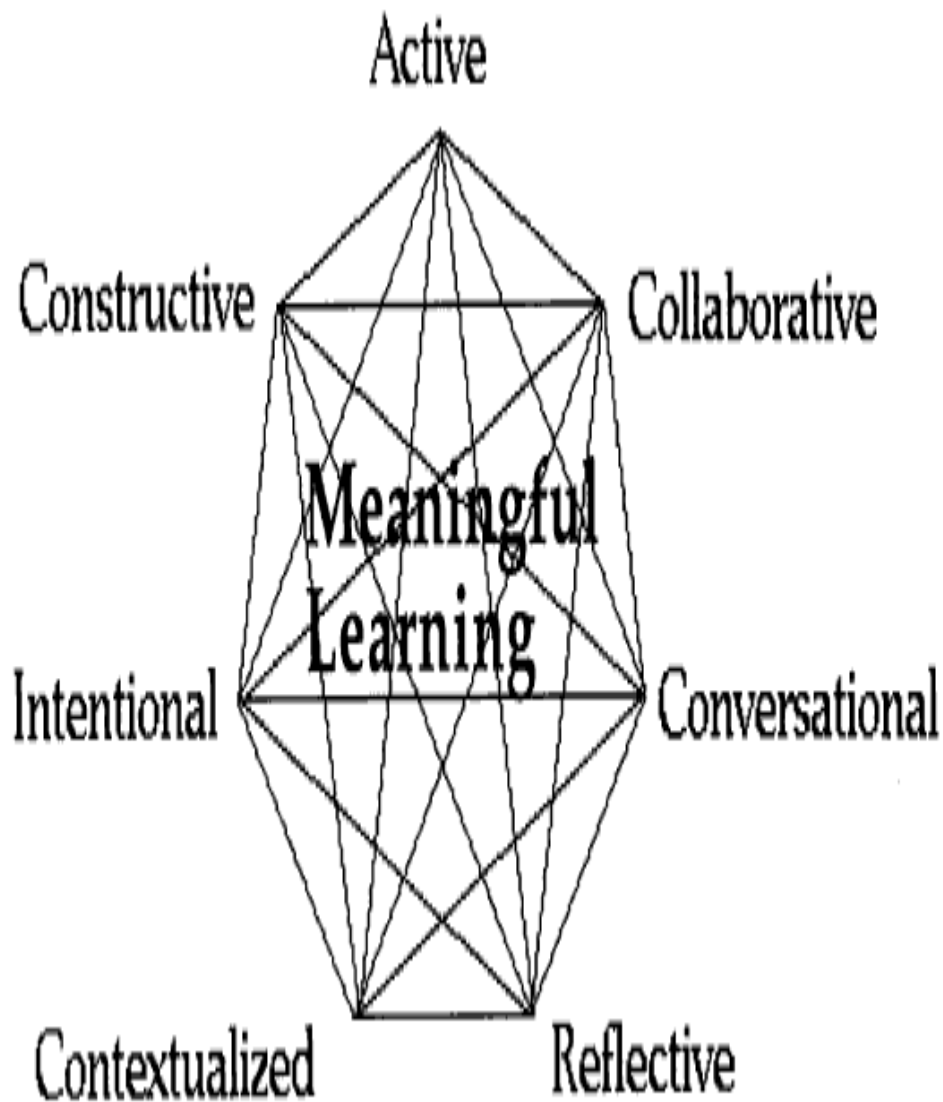
## 2.5. Characteristics of Meaningful Learning

Karppinen (2005, p.235) has declares that the characteristics of meaningful learning are stated previously in many works and articles by many authors such as: "David H. Jonassen (1995,2002; Jonassen & Roher-Murphy, 1999); Heli Ruokamo (2000); Ruokamo, Tella, Vahtivuori, Tuovinen and Tissari (2002,2003; Vahtivuori-Hanninen et al., 2004) and Hannu Sioini (1999). Krappinen adds that he has selected six major characteristics of meaningful learning process from those previous works. These characteristics are in accordance with the general two principals of constructivism that are determined by Duffy and Cunningham (1984, p.2) as: "(1) learning is an active process of constructing rather than acquiring knowledge, and (2) instruction is a process of supporting that construction rather than communicating knowledge".



The qualities of Meaningful Learning can be represented through the following figure:

**Figure 2.2: Qualities of Meaningful Learning.** Adapted from *Supporting Communities of Learners with Technology: A Vision for Integration Technology with Learning School*, David H. Jonassen (p.60), 1995)



The following table illustrates the characteristics of meaningful learning among researchers from different perspectives:

**Table 2.1**

**Characteristics Selected from the Characteristics of Meaningful Learning (Jonassen; Ruokamo; Ruokamo et al.) and Characteristics of Good Learning Situations (Soini) as cited in Karppinen (2005, p. 236)**

<b>Characteristics selected</b>	<b>Jonassen (1995, 2002)</b>	<b>uokamo (2000), Ruokamo et al. (2002, 2003)</b>	<b>Soini (1999)</b>
<b>1. Active</b>	Active	Active and self-Directed	Autonomy
<b>2. Constructive and individual</b>	Constructive	Constructive and cumulative	-
		Individual	-
<b>3. Collaborative and conversational</b>	Collaborative	Cooperative and communal	Collaboration
	Conversational	Conversational and interactive	Dialogue
<b>4. Contextual</b>	Contextualized	Contextual and situational	-
<b>5. Guided</b>	-	Guided	-
<b>6. Emotionally involving and motivating</b>	-	-	Emotionally involving
-	Intentional	Goal oriented and purposive	-
-	Reflective	Reflective	Reflection and feedback
-	-	Transferable	-
-	-	Abstract	-
-	-		possibility to see things from new or different perspectives

According to the characteristics that are listed in the **Table 2.1**, meaningful learning is: (a) active, (b) constructive and individual, (c) collaborative and conversational, (d) contextual, (e) guided, and (f) emotionally involving and motivating.

### **2.5.1. Meaningful Learning is Active**

Duffy and Cunningham (1996, p.171) declare that constructivists have a radical view about learning. They claim that students will learn much better if they have the chance to occupy an active role in their own process of learning. Similarly, Jonassen (1995, p.60) considers that active learning is realised when "learners are engaged by the learning process in a mindful processing of information, where they are responsible for the results". This indicates that meaningful learning is a constructive process. Also, meaningful learning requires active learners who are asked to engage in different and various meaningful tasks for the sake of assembling and forming meaning from their errors and from their participation in meaningful tasks. Ruokamo, et. al (2002, p.1678) consider that this active engagement of learners in their process of learning will result creating learners who do not hesitate to ask questions. Also it gives them the ability of evaluating the information critically and convey new ideas with new way of thinking.

### **2.5.2. Meaningful Learning is Constructive and Individual**

According to Jonassen (1995, p.60; 2002, p.45), constructive learning is about the adaptation of new ideas along with the prior knowledge. This process is no longer considered as knowledge reception, but it is the process of meaning making. Meaning making is originated from the comparison, evaluation and the contrast that are made by learners. In other words, learners start to make their own representation of the world which is resulted from their prior knowledge with the impact of the environment they live in.

### **2.5.3. Meaningful Learning is Collaborative and Conversational**

Jonassen (1995, p.60) claims that "learners work in learning knowledge building communities, exploiting each other skills while providing social support and modelling and observing the contribution of each members". This view about learning stresses the importance of interaction between the learners and their environment. Since the exchange of learners' ideas and perspective is established, learners will extremely benefit from such interaction and they will have the opportunity to exploit each other's' ideas. Moreover, they could also provide new modelling. Karppinen (2005, p.240) adds that "according to this view, learning is dialogue, that is, a process of internal or social negotiation. Many things can function as a starting point for this negotiation: a puzzlement, perturbation, expectation, violation, curiosity, or cognitive distance". This reveals that learning is a communicative process that could be done through the collaboration of learners with each other inside the classroom or outside it.

### **2.5.4. Meaningful Learning is Contextualized**

According to Karppinen (2005, p.241), meaningful learning should be authentic and should never be decontextualized. To say it differently, meaningful learning should support activities that are practical and relevant so that learners could transfer and use their knowledge in real life situations and solve problems.

### **2.5.5. Meaningful Learning is Guided**

The term guidance is deeply involved in the principals of constructivism. It could be understood through the statement of Vygotsky (1978, p.86) when he declares that "the distance between the actual developmental level of a child as determined by independent problem solving and the level of potential development as determined through problem

solving under adult guidance or in collaboration with more capable peers". Anderson (1987; as cited in Sheuell, 1990, p. 540) considers that meaningful learning "is a goal oriented process best characterized in terms of problem solving". This shows that the behaviour of learners is directed from the initial step of the meaningful learning. Setting a goal is very important so that learners engage in meaningful learning with the assistance of teachers and adults to reach the ability of solving problems autonomously.

### **2.5.6. Meaningful Learning is Emotionally Involving and Motivating**

Järväla and Niemivirta (1999, as cited in Cimer, 2007, p.21) argue that emotions have a strong relation with cognition. Therefore, understanding of these emotions inside the classroom is highly required.

According to Schutz and Decuire (2002, p.125) "researchers are just beginning to understand the transaction among motivation and self-regulation". This entails that there is an interrelationship between the feeling of motivation and self-direction, i.e, the more learners are motivated the more that are have the willingness to achieve meaningful, autonomous type of learning.

### **2.6. Definition of Critical Thinking**

Critical thinking is considered as one of the most important element in the contemporary educational psychology. Today's educational interests are guided by the establishment of thoughtful learning atmosphere which helps create active learners who are able to understand, analyse, interpret, and evaluate the given information i.e, to use their critical thinking skill.

According to Russell (1971, as cited in Halpern, 2014 p. 6) "critical thinking then is the process of evaluation or categorization in terms of some previously accepted standards...this seems to involve attitude plus knowledge of facts plus some thinking skills". In the same

context, Facione (1990, p. 3) states that critical thinking is "purposeful, self-regulatory judgment which results in interpretation, analysis, evaluation, and inference, as well as explanation of the evidential, conceptual, methodological, criteriological, or conceptual considerations upon which that judgment is based". Moreover, the American educator and psychologist Dewey (1933, p.9) defines critical thinking as "the active persistent and careful consideration of a belief or supposed form of knowledge in the light of the ground which support it and the further conclusions to which tends". In other words, critical thinking is an "evaluative, or reflective consideration about the validity, nature or substance of an idea or proposition" (McGregor, 2007, p. 172). This determines that critical thinking is a continuous investigation which aims at analysing and interrogating the legitimacy of facts and ideas to from a personal vision.

Furthermore, Scriven and Paul (2013, as cited in Woolfolk, 2017 p.400) define critical thinking as "the intellectually disciplined process of actively and skilfully conceptualizing, analysis, synthesizing, and/or generated by observation, experience, reflection, reasoning or communication, as a guide o belief and action". In others words, Bradly and Price (2016, p.3) argue that "in short, critical thinking is handy whenever knowledge, objectivity and analytical skills are necessary". However, Weiten (2013, p.34) considers that "critical thinking is purposeful, reasoned, goal-oriented thinking that involves solving problems, formulating inferences, working with probabilities and making carefully though out decisions". This reveals that critical thinking is a sceptical process which questions the validity of ideas and information in an objective manner in order to formulate logical truths.

## **2.7. Approaches to Critical thinking**

According to Lai (2011, p.4) critical thinking has its roots in the field of philosophy, psychology and recently in education. Accordingly, Lai has divided the approaches of critical

thinking in to three main approaches namely, the philosophical approach, the cognitive psychological approach, and the educational approach.

### **2.7.1. The Philosophical Approach**

The philosophical approach is an approach which is established from the works of the early philosophers like, Socrates, Plato and Aristotle, as well as from the work of recent philosophers such as, Matthew Limpan and Richard Paul. This approach is a hypothetical one that has the goal of setting features of critical thinkers. Sternberg (1986, p.4), points out that this approach is an ideal approach because it has only the aim of describing the specific characteristics of the critical thinkers.

### **2.7.2. The Cognitive Psychological Approach**

Unlike the philosophical approach which is deemed to be ideal one, the cognitive psychological approach is an experimental approach that considers critical thinking as a set of mental processes that are performed by individuals. From the views of the cognitive psychological approach, critical thinking could be defined as "the use of those cognitive skills or strategies that increase the probability of a desirable outcome" (Halpern, 1998, p. 450). In the same viewing, Strenberg (1968, p. 3) states that critical thinking is "a mental process, strategies, and representation people use to solve problems, and make decisions, and learn new concepts".

### **2.7.3. The Educational Approach**

Critical thinking has gained the attention of educators as much as many researchers of other fields. The Bloom taxonomy of information processing skills is one of the most referenced sources for researchers who wants to establish a meaningful type of education. Lai (2011, p. 8) declares that "Bloom's taxonomy is hierarchical, with "comprehension" at the

bottom and “evaluation” at the top”. Kennedy (1991; as cited in Lai, 2011, p. 8) points out that in order to form a thoughtful meaningful type of learning that is based on critical thinking there should be of three main elements that are namely analysis, synthesis and evaluation.

## **2.8. Four-Part Model of Critical Thinking**

Halpern (2014, p. 18) designed a model of critical thinking in which he divided it into four main parts. These parts can raise of learners’ awareness to be active mindful type of learners. The four parts of this model are as the follow:

### **2.8.1. Skills Approach to Critical thinking**

For Halpern (2014), critical thinking instructions are based on two main assumptions. The first assumption is about the recognition of the existence of definable thinking skills. The second assumption is about the application of these definable skills by learners in order to be better learners in terms of being more effective and active thinkers. Moreover, Halpern (1998, p. 552) emphasises the necessity to guarantee the presence of certain skills that encourage critical thinking ability in the educational system. Some of these skills are problem-solving skills, analysing, arguing, reasoning, and decision making skills.

### **2.8.2. The Disposition of Effortful Thinking and Learning**

Butler (2012; as cited in Halpern, 2014, p. 20), finds that learners who are engaged in an effortful process of thinking are more likely to score highly in the different assessments that require any type of mental skills. In effect, this part of the model is about the knowledge which concerns some of the cognitive skills needed in solving particular problems, and how these skills could be performed in their perfect time and context. To say it simply, this part shows the importance of dispositions of paramount. Some of these dispositions are:



### **2.8.2.1. Willingness to Plan**

It refers to the learners' attitude towards thinking, and their readiness to clear the way for their learning path by setting specific goals and aims. In this context, Zimmerman (2002, p.65) has considered the willingness to plan as "self-directive process by which learners transform their mental abilities into academic skills".

### **2.8.2.2. Flexibility**

It refers to the mentality of learners and their willingness to accept others' different views. Also to have the readiness for expanding and extending personal ideas. Moreover, it is about the ability of learners to perceive the content from different angles which enables them to establish active connection between their prior knowledge and the new ideas, hence, to reach a meaningful type of learning. Rokeach (1960, p. 54) argues that learners with inflexible minded are more likely to respond negatively when they are exposed to new ideas, i.e. they refuse any kind of modifications that concern their beliefs and behaviours. Unlike the ones who could be adapted to new ideas in smooth ways. These kinds of learners are described as open minded learners.

### **2.8.2.3. Willingness to Self-Correct, Admit Errors, and Change Your Mind when the Evidence Changes**

Truth and fact are not conclusive, but they have the nature of being changeable in regard evidence, i.e. truth and fact are not absolute. Segan (cited in Halpern, 2014, p.22) argues that "in science it often happens that scientists say, "You know that's a really good argument; my position is mistaken," and then they would actually change their minds and you never hear that old view from them again". This indicates that individuals are not usually right and they are living with the possibility of making mistakes. It is noteworthy to mention that the

students with a good critical thinking are sceptical. That is, they are always questioning the validity of claims in a systematic way which enables them to be objective.

### **2.8.3. Transfer of Training**

Halpern (2014, p.25) declares that "the third component of this model involves recognizing when critical thinking is needed so that you can select the most appropriate skills for the situation". This demonstrates that transfer of training refers to the aptitude of using a particular learned skill and transfer it in other context, where it could be used. Transfer has many forms, however, there is two common forms that are named as positive transfer and negative transfer. According to Moreno (2010, p. 270), positive transfer takes place "when using what was learned in the past facilitates learning something new or solving new problems". Simons (1990; as cited in Mariano 2014, p.3) argues that negative transfer occurs "when the knowledge learned in one situation interferes or hinders learning in another situation".

### **2.8.4. Metacognitive Monitoring**

Grainger et al (2016, p.65) consider that "metacognition refers to an individual's beliefs and knowledge about cognition (often referred to as metacognitive knowledge), as well as an individual's ability to monitor and control their own cognitive processes (often referred to as metacognitive skill)". In other words, metacognitive monitoring is a self-directed process where learners are thinking and at the same time trying to evaluate their personal thinking and learning.

## **2.9. Critical thinking in Education**

In all the educational systems that support and encourage learners-centered approach the importance of critical thinking is emphasised. Clement (1979, p.1) declares that "we should

be teaching students how to think. Instead, we are teaching them what to think". The aforementioned quote highlights the fact that students should be more aware about their cognitive skills in order to achieve better performance in their academic career.

### **2.9.1. Features of Critical Thinking**

The implementation of meaningful learning necessitates well scheduling and specific instructions that involve systematic techniques that by its turn will encourage the engagement of students in a thoughtful type of learning. According to Butterworth and Thwaites (2013, p.8), critical thinking activities should fall under three headings that are:

#### **2.9.1.1. Analysis**

Butter and Thwaites (2013) argues that analysis "means identifying the key parts of a text and reconstructing it in a way that fully and fairly captures its meaning". This reveals that the activities in this case should contain some points that must be examined in a logical, careful and deep manner.

#### **2.9.1.2. Evaluation**

Evaluation refers to the process of assessment, i.e. it means judging how successful a text is in the regards of some criteria such as strong arguments, evidence, and logic.

#### **2.9.1.3 Further Arguments**

Further arguments are commonly known as "self-explanatory". It comes after the two previous processes of analysis and evaluation. After insuring objectivity, students have the chance to perform their own understanding and interpretation of the subject matter.

## **2.10. Limitations of Critical Thinking**

Snyder and Snyder (2008, p.92) identify four barriers that could hinder the establishment of a meaningful type of learning.

### **2.10.1. Lack of Training**

Broadbear (2003; as cited in Snyder and Snyder, 2008, p.93) points out that "teachers often are not trained in critical thinking methodology". In fact, not all teachers are familiar with the method that concerns the critical thinking. They have the knowledge about the content of their subjects which enables them to play the role of instructors only.

### **2.10.2. Lack of Information**

The application of meaningful learning is not that easy task to be realised. Accordingly, teachers should be equipped with particular authentic materials like text books in order to determine an appropriate plan to be followed step by step for the purpose of teaching students how to think critically.

### **2.10.3. Preconceptions**

Preconception is considered as one of the major elements that causes the block of critical thinking. Hence, students and teachers should be open minded and objective to avoid preconceptions that could disturb their analytical skills.

### **2.10.4. Time Constraints**

As it is known, critical thinking which results in a meaningful learning demands careful schedule that can be time consuming. However, teachers are obliged to finish what they teach in regards to specific time which is related to a certain syllabus. Hence, they will draw their

attention to finish the syllabus content rather than developing and involving their learners' cognitive skills in the process of learning.

## **Conclusion**

After the emergence of new approaches and new types of learning the need is felt for methods and materials that do not only transfer knowledge, but to teach learners how to look up for the knowledge autonomously. These attitudes of seeking the knowledge should take place in all educational systems in order to form a type of learners who are active and responsive for the knowledge and learning procedures. Above all, to cater for the needs of the learners and develop their ability to use their cognitive abilities and hidden potentials to be creative, autonomous, active and field-independent is an ultimate objective and a fundamental principle in foreign language learning/teaching.

## **Chapter Three**

### **Investigating Teachers and Students' Attitudes Toward Rote and Meaningful Types of Learning**

#### **Introduction**

#### **3.1. Students' Questionnaire**

##### **3.1.1. Population and Sample**

##### **3.1.2. Description of Students' Questionnaire**

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#### **Conclusion**

#### **General Conclusion**

#### **Pedagogical Implications and Recommendation**

#### **Research Limitations**

## **Introduction**

The fundamental aim of our research is to explore teachers and students' attitude toward two different types of learning namely rote vs meaningful learning. Accordingly, this chapter is devoted to reveal this aim through a quantitative method. More precisely, among the different instruments of data collection, two questionnaires are chosen; one questionnaire is for students, while the second one is for teachers. Both questionnaires are described and analysed respectively.

### **3.1. Students' Questionnaire**

The students' questionnaire aims at exploring both of students' attitude and learning habits. The aim is also to allocate students' preferable learning strategies.

#### **3.1.1. Population and Sample**

According to Kothari (2004, p.153), population "refers to the total of items about which information is desired". In simple words, population is a term which describes the full group in which results will be generalised. The target population in the current study is first-year master students at the department of English of the university of 08 Mai 1945 Guelma, who enrolled for the academic year 2019-2020. This particular population has been selected intentionally because students at this stage are supposed to be well equipped with certain knowledge which enables them to be familiar with the topic of the research, hence, can answer the questionnaire. Nonetheless, to realise the authenticity of our research, half of the population is taken, i.e. 46 of the students' answers are accepted.

#### **3.1.2. Description of Students' Questionnaire**

The students' questionnaire seeks to investigate students' learning habits, identify their preferable strategies. The questionnaire is composed of 18 questions grouped into two sections. The first section is about the general information and the second section contains questions about teaching/learning types. The questionnaire includes "Yes" "No" questions

and multiple-choices questions. It also contains open-ended questions which require full statements for elaboration.

### 3.1.3. Administration of Students' Questionnaire

The students' questionnaire was administered to 46 first-year master students at the department of Letters and English Language of Guelma university, in June 2020. Because the university has been closed since fifteenth of June due to the COVID (Corona Virus disease) 19 Pandemic, the questionnaire has been dispatched in a E-version. This online survey has arranged in order to gather the necessary data from our samples. The link which concerns the questionnaire has been posted and shared in a close group of 2019\2020 first year master students of the same department. The students are informed that their answers will be treated anonymously. In relation to time factor, they have 15 days starting from the first day of the link publication to complete answering our questionnaire.

### 3.1.4. Interpretation and Analysis of Students' Questionnaire

In order to check the hypotheses of the current study and demonstrate their validity. The students' questionnaire is collected in order to be analysed and find out students' perspectives and beliefs about the issue under investigation.

#### Section One: General Information

#### Q1. How many years have you been studying English?

**Table 3.2**

*Students' Years of Studying English*

Answers	Numbers	percentage%
13 Years	2	4%
12 Years	8	18%
11 Years	36	78%
Total	46	100%



As far as table 3.2 is concerned, the majority of the students (78%) said that they studied English for 11 years. However, another category (18%) claimed that they studied English for 12 years. A third category, (4%) affirmed that they studied it for 13 years. These results indicate that the students have a large erudition, they have spent many years in learning English. It means that they can be aware enough about the different aspects of the learning process and this will allow them to understand and answer the questionnaire.

**Q2. Were English language studies at the university your choice?**

**A. Yes**

**B. No**

**Table 3.3**

*Students' Choice of English at University*

Option	Number	Percentage
Yes	37	80%
No	9	20%
Total	46	100%

As shown in table 3.3, (80%) of the participants claimed that studying English was their choice, while only (20%) of them said the opposite. This reveals that the majority of the students had the intention to study English from the beginning. Hence, their potentials would be increased, unlike the students who did not chose English which may denote that they did not have other options. Is it to say, they just come to classroom because they have not any other options.

**Q3. If yes, did you regret this choice? Whatever your answer, please justify**

**Table 3.4**

*Students' Feelings Towards Studying English*

Option	Number	Percentage
Yes	11	24%
No	35	76%
Total	46	100%

Table 3.4 indicates that only (24%) of the participants regretted their choice of studying English. The justification of these participants differ from one to another. Some of the students got bored with the methods adopted by some teachers. Other participants declared that English at university is more complicated than English studied at the secondary school. Therefore, they found difficulties in understanding English taught at the university level. Further respondents assert that studying at the university requires skills and abilities which they are not equipped with. Another category expressed regret because they will not be offered job opportunities. Thus, they felt hopeless, depressed, and unmotivated. On the other hand, (76%) of the participants confirmed that they did not regret their choice of learning English justifying their answers by saying that they were fond of the English language from their childhood. They also claimed that English is a universal language. Hence, it is spoken by people all over the world. This may mean that those students already know the extent of their potential, and aware about their goals and aims behind studying English.

## Section Two: teaching/learning types

### Q4. Are You :

**A. A Dependent Learner ? That is, do you always rely on teachers and peers to clarify things about the English language?**

**B. An Independent Learner? That is, do you always rely on yourself for the sake of understanding the English language?**

Table 3.5

#### *Students' Autonomy*

Option	Number	Percentage
A Dependent Learner	14	30%
An Independent Learner	32	70%
Total	46	100%

In table 3.5, we can see that (70%) of the participants are independent learners. This can be interpreted as that they are aware about their cognitive skills and they could manage their own learning very well. However, (30%) are dependent learners. This demonstrates that they still have not the ability to rely on themselves and adopt some specific strategies that would make their performance much better.

**Q5. Your teachers play most of the time the role of:**

**A. A Source of Information**

**B. A Guide**

**C. Others**

**Table 3.6**

*The Role of Teachers inside the classroom*

Option	Number	Percentage
A Source of Information	31	67%
A Guide	12	26%
Others	3	7%
Total	46	100%

The results from table 3.6 show that (67%) of the students claimed that their teachers took the role of source of information. Others, with the percentage of (26%) declared that their teachers stood as a guide. However, (7%) of the participants argued that their teachers took the position of a moderator, a facilitator or both of guide and source of information. As a matter of fact, first year master students have tutorials most of the time. This explains why the teachers mostly stand as a source of information.

**Q6. How often do your teachers provide you with handouts?**

**A. Always**

**B. Sometimes**

**C. Rarely**

**D. Never**

**Table 3.7**

*The Use of Teachers' Handouts*

Options	Number	Percentage
Always	12	26%
Sometimes	29	63%
Rarely	5	11%
Never	0	0%
Total	46	100%

The findings in table 3.7 show that the majority (63%) affirmed that teachers do not give them handouts in a regular manner but sometimes. (26%) of participants claimed that teachers always provide them with handouts. However, the minority of the participants with the percentage of (11%) argued that teachers seldom give them handouts. This denotes that teachers are always providing their students with handouts and this may refer to the nature of the module they teach.

**Q7. Do you rely on your teachers' handouts?**

**A. Yes**

**B.no**

**Table 3.8**

*Students' Dependence on Teachers' Handouts*

Options	Number	Percentage
Yes	34	74%
No	12	26%
Total	46	100%

Table 3.8 shows that the majority of the participants (74%) rely on teachers' handouts. The minority with (26%), claimed that they are independent when it comes to using teachers' handouts. The data show the strong tendency of students' in relying on the teachers' handouts instead of being self-sufficient learners who seek for the knowledge actively, with the guidance of the teachers.

**Q8. How do you describe the need for the handouts?**

**A. Extremely Necessary**

**B. Necessary**

**C. Not Necessary at All**

**Table 3.9**

*The Necessity for Handouts*

Options	Number	Percentage
Extremely Necessary	15	35%
Necessary	27	62%
Not Necessary at All	4	3%
Total	46	100%

From table 3.9, the majority of the students (62%) considered the handouts as a necessary element, while (35%) considered them as an extreme necessity. However, (3%) saw the handouts as unnecessary in their learning. This means that the majority of the students may not use their cognitive skills appropriately and instead of that, they prefer to get well detailed lessons that are provided by teachers.

**Q9. Do you look for further information and explanation that is not mentioned in the teachers' handouts?**

**A. Yes**

**B. No**

**C. Sometimes**

**Whatever your answer, please justify.**

**Table 3.10**

*The Students' seeking for Information Beyond the Handouts*

Options	Number	Percentage
Yes	18	23%
No	6	16%
Sometimes	22	61%
Total	46	100%

The reason behind this question is to determine the willingness of the learners to go beyond the content of teachers' handouts and look out for further information. Table 1.10 shows that (61%) of the students affirmed that they sometimes try to search for further information that is not included in the handouts because sometimes the handouts are not sufficient for understanding the lessons especially when they contain difficult words or related to a missed course. Moreover, (23%) declared that they usually go beyond the content of handouts in order to find new information and some summaries that support their understanding. (16%) answered by No and they justified their choice by saying that it is a waste of time to look for extra information, and they just do not want to make new searches and prefer to rely on teacher's information. In fact, it seems that the majority of learners' may not be motivated to seek for the knowledge and this what would make them keep at the same level without making any progress.

**Q10. During the preparation for tests and exams, what strategy do you generally apply? (you can choose more than one option)**

**A. Memorization**

**B. Comprehension**

**C. Systematic Organisation and Selection of Ideas**

**D. Further Reading of Books and Sources**

**C. Others**

**Table 3.11**

*Students' Application of Learning Strategies*

Options	Numbers	Percentage
Memorization+ Comprehension	12	26%
Comprehension+Systematic Origination and Selection of Ideas	23	50%
Systematic Origination and Selection of Ideas+ Further Reading of Books and Sources	5	10%
Further Reading of Books and Sources+ Comprehension	3	7%
Others	3	7%
Total	46	100%

Table 3.11 denotes the students' applied learning strategies during the preparation for the exam. From the table 3.11, we can point out that a great part of the students, specifically (50%) of them replied that they prefer comprehension and systematic origination and Selection of Ideas. Others with (26%) believe that the combination between memorization and comprehension make their performance better in the exam. Moreover, (10%) of the participants preferred systematic origination and selection of ideas and further reading of books and Sources. However, (3%) replied that further reading of books and sources and comprehension is better for them. Another 3% of the participants declared different answer as follows: the first one declared that he uses mind mapping, while the second affirmed that he uses mental linkage between the ideas. The third one mentioned that he prefers skimming



and scanning. As it is clear above, the answers are heterogeneous. The reason behind this diversity in views refers to the application of miscellany learning strategies among the learners. Indeed, each learner has his own needs, goals, and style. This what would make him adopt different learning strategies, yet his awareness about these strategies may not be adequate. Teachers' intervention is needed in such cases to raise the awareness of students toward these strategies and make them able to choose correctly the suitable ones that are based on their potentials.

**Q11. When you memorize the content of the provided handouts, do you absorb it without deep understanding?**

- A. Always**
- B. Sometimes**
- C. Rarely**
- D. Never**

**Table 3.12**

*Students' Absorption of Handouts Content*

Options	Numbers	Percentage
Always	08	17%
Sometimes	09	20%
Rarely	08	17%
Never	21	46%
Total	46	100%

In table 3.12, It can be noticed that most of the participants (46%) argued that they never absorb the content of handouts without deep understanding. (20%) of them, however, stated that they sometimes absorb the handouts without a deep understanding. (17%) of the students said that they always observe the handouts content with no type of understanding. The remaining students (17%) declared that they rarely absorb the handouts content without deep understanding. The majority of the participants claimed that they never rely on a mere

memorization of the information provided in the handouts. This entails that these students seek after the knowledge actively and may think critically through the use of their various cognitive abilities that enable them to use the knowledge meaningfully.

**Q12. Could you achieve high scores in tests and exams, without a total reliance on teachers' handouts?**

**A. Yes**

**B. No**

**Table 3.13**

*Students' Reliance on Teachers' Handouts*

Options	Numbers	Percentage
Yes	24	52%
No	22	48%
Total	46	100%

As it is shown in table 3.13, (52%) of the students claimed that they could reach high scores in the exams without a total reliance on teachers' handouts. (48%) of them affirmed that they could never get high scores in the exams without a total reliance on teachers' handouts. This latter category may have problems independent and they just stick to what teachers say and give. However, the data denotes that the majority of students can be confident enough to study without teachers' handouts and rely on their learning style, learning strategies, and cognitive abilities that can be promoted via readings.

**Q13. If no, is it because:**

- A. Teachers' ask for the same exact information mentioned in their handouts**
- B. Teachers' explanation is not enough**
- C. You find yourself unable to analyse, select and collect the necessary information**
- D. Others**

**Table 3.14**

*The Students' Reason Behind the Reliance on Teachers' Handouts*

Options	Numbers	Percentage
Teachers' ask for the same exact information mentioned in their handouts	11	48%
Teachers' explanation is not enough	03	13%
You find yourself unable to analyse, select and collect the necessary information	5	22%
Others	04	17%
Total	22	100%

Among the participants, the majority of them (48%) claimed that they cannot be independent from teachers' handouts because teachers ask for the exact same information mentioned in their handouts in the exam. Indeed, this phenomenon may exist where some teachers accept only what they have provided and neglect any answers even if the information is correct but different. In fact, this attitude may be one of the major factors that encourages passive learners. (22%) stated that they find themselves unable to analyse, select, and collect the information. This group may not know how to manage their learning and adopt the appropriate strategy that makes them capable of performing well. Moreover, (13%) of the students considered that teachers' explanation is not. This may refer to many reasons such as: teachers' method, and technique, teachers' language and pronunciation and teacher performance speed (how fast they move from one idea to another). However, (17%) of the participants provided other reasons, they are ported as follows:

- "Learners, need more information and explanation".
- "My critical thinking is not good".
- "I don't like to memorize".
- "I can rely on teacher explanation".

These declarations are related to the students' self-esteem and motivation. If the students have low self-esteem and are unmotivated, they will never pay attention to the module and vice versa.

**Q14. When you learn a new lesson, does you prefer to:**

- A. Establish connection between the new subject and another related subject**
- B. Focus on the content of the new lesson**

**Table 3.15**

*The Students' Attitude When Learning a New Subject*

Options	Numbers	Percentage
Establish connection between the new subject and another related subject	17	37%
Focus on the content of the new lesson	29	63%
Total	46	100%

As it is indicated in table 3.15, the majority of the students, i.e. (63%) focus on the content of the new lesson only when they learn a new subject. As a matter of fact, this type of learning and isolation of ideas and information, lead not to the development of the process of learning in an effective way. The rest of the participants (37%), meanwhile, claimed that they establish a connection between the new subject and another related subject in the process of learning a new one. Actually, this is the realisation of what is called *meaningful learning*. In other words, students use their prior knowledge to integrate

the new one and acquire knowledge support that may enable them to solve various tasks in different ways.

**Q15. How long could you remember the information you learn (especially after tests and exams)?**

**A. Years**

**B. Weeks**

**C. Days**

**D. Forget it after you learn it (Or after you use it in the exam)**

**Table 3.16**

*The Students' Capacity of Recalling Information*

Options	Numbers	Percentage
Year	10	25%
Weeks	19	47%
Days	10	25%
Forget it after you learn it (Or after you use it in the exam)	7	3%
Total	46	100%

As it is displayed in table 3.16 only (25%) of the students confirmed that they can remember the information for a year. The rest is represented as follows: (47%) of the students can remember the information for weeks; (25%) can do it for days, and (3%) them forget the new information after the exams. This may indicate that the majority of the students follow a rote type of learning that is manifested in the process of memorization. In fact, students' answers to Q13 justify their answers to Q15. According to those responses, we can denote that teachers are to some extent encouraging the students to rely on a mere memorization of lessons without thinking critically or using their cognitive abilities properly. Unfortunately, this kind of behaviour is not expected in the higher educational

context where students at this level should seek the knowledge on their own and create their own meaning and understanding i.e, adopt a meaningful way of learning, yet without excluding teachers' guidance and assistance.

**Q16. In your opinion, what is the most useful strategy that can be applied in learning English?**

**A. Rote Learning**

**B. Meaningful Learning**

**C. Both**

**Justify your answer please**

**Table 3.17**

*Students' Preferable Applied Learning Strategy*

Options	Numbers	Percentage
Rote Learning	2	4%
Meaningful Learning	25	55%
Both	19	41%
Total	46	100%

According to table 3.15, the majority of the students (55%) agreed that *meaningful learning* is the best way to be followed. Their justifications are quoted as follows:

"When you understand something you can't lose it no matter what, and you can give the info to the teacher with any style. And it is quiet opposite for rote learning because when you forget the info you can't get it back".

"-Meaningful learning activates critical thinking, unlike rote learning".

"-Comprehension is the key to everything, I believe that when you get and understand the lesson you are going be able to express the way you want in the exam even if you do not remember the exact words or the way you learned it".

- "I think understanding what you are learning is the most important thing that teachers/ students should work hard on to improve it better than just providing information and memorising it for the sake of the marks".

- "Because if you truly understand what you are studying you will be able to remember it for a very long time".

(41%) of participants provided another view, where they think that both strategies are beneficial. For this reason, one of them stated that:

- "I prefer both because of many reasons: 1st I cannot memorize any information or revise any lesson without understanding the meaning and this can be achieved by meaningful learning. 2nd some materials should be revised repeatedly in order to be memorized quickly for example the basics and key terms, and this is done only via rote learning".

- "Another one said that "I think a combination of learning strategies give better results". A third student, in his turn, affirmed that:

- "They complete each other, we can't fully exclude one of them".

Only (4%) of the students consider rote learning as the best strategy in learning. According to their justifications, there is information that does not require a deep concentration and memorization such as: dates, names, and technical words.

As it is noticed, the participants who constitute the majority are in favour of the implementation of *meaningful learning* because of its advantages in making their learning better as it gives them the needed progress and the freedom of thinking.

**Q17. To what extent do you see the importance of the critical thinking skill in the process of learning?**

**A. Extremely Necessary**

**B. Necessary**

**C. Not Necessary at All**

**Table 3.18**

*The Students' Views About the Importance of the Critical Thinking Skill*

Options	Numbers	Percentage
Extremely Necessary	27	59%
Necessary	17	37%
Not Necessary at All	2	4%
Total	46	100%

Table 3.18 reveals the students' view about the importance of the critical thinking. The students' opinions are varied and diversified. (59%) of the students regard critical thinking as an extreme necessity in the process of learning. (37%) view critical thinking as a necessary element in the process of learning. This means that the majority of the students are aware about the importance of critical thinking skills, hence, they may be working to develop it. Moreover, the teachers should provide opportunities for the students to be autonomous, independent so as to think critically. Only (4%) of the students see that critical thinking is not necessary and does not yield fruitful results in the process of learning a foreign language. This group may have not adequate knowledge which enables them to understand the real importance of thinking critically.

**Q18. Any opinions, comments, and suggestions are welcome!**

Most of the students recommended that teachers should encourage the students to think critically and benefit a great deal from *meaningful learning*.



### **3.1.5. Summary of Findings of the Students' Questionnaire**

Based on the obtained results from students' questionnaire a clear quantitative data is formed. The interpretation of students' questionnaire demonstrates that the students are looking forward to the implementation of *meaningful learning* rather than *rote learning* because the latter prevents them from promoting their learning autonomously and thinking critically.

### **3.2. Teachers' Questionnaire**

In order to investigate teachers' views about the issue under study. A questionnaire has been designed and used as a data gathering tool to reach the intended aim.

#### **3.2.1 Population and Sample**

The target population of this questionnaire consists of eight teachers at the department of English, university of Guelma. Teachers are selected on the basis of their specialities. They teach different modules. This criterion is purposely taken into consideration in order to have different opinions and views.

#### **3.2.2. Administration of Teachers' Questionnaire**

In order to check the validity of our hypotheses, a teachers' questionnaire is administered in June 2020. Due the special circumstances that concern the universal pandemic (Corona Virus) teachers' questionnaire sent and collected via online survey. The link of the survey dispatched through email, while the answers was submitted in Google E-survey to ensure the anonymity of teachers. The teachers' questionnaire is administered to investigate the teachers' perspectives and beliefs toward the dichotomy of rote vs meaningful learning in English foreign classes.

#### **3.2.3. Description of Teachers' Questionnaire**

The teachers' questionnaire is composed of 21 questions that are divided in to two major sections. In section one, general information; the purpose is to collect background

information about the questioned teachers'. Section two which is entitled teaching\ learning type is aimed at revealing teachers' practices inside the classroom. In a nutshell, the questionnaire involves multiple choices questions and long sentences questions where teachers are asked to form a full sentence as answers.

### 3.2.4. Interpretation and Analysis of the Teachers' Questionnaire

The teachers' questionnaire is collected to be analysed and explore teachers' perspectives and beliefs about the issue under investigation, which by its turn allows the examination of the validity of the hypotheses of the current study.

#### Q1. How long have you been teaching English?

Table 3.19

*Teachers' Years of Experience*

Answers	Numbers	Percentage
35 Years	1	14%
15 Years	1	14%
13 Years	2	16%
11 Years	1	14%
10 Years	1	14%
8 Years	1	14%
6 Years	1	14%
Total	8	100%

Table 3.19 shows that only (14%) of the teachers who have the experience of 15 years, while another (14%) have more than 15 years in experience. This category of teachers has acquired enough competence through their experience not just to teach the content-based, but to pave the path of learning to the learners by raising their awareness toward the different fundamental skills that could help them in their learning journeys. However, the majority of the teachers have less than 15 years in teaching. They have many years of

teaching experiences to some extent, but these few years may not allow them to go beyond the language teaching structure and teach some particular skills such as thinking critically and seeking for the information meaningfully.

**Q2. Could you please specify your degree?**

**A. B.A**

**B. Master**

**C. Magister**

**D. PhD**

**Table 3.20**

*Teachers' Qualifications*

Options	Numbers	Percentage
B.A	0	0%
Master	0	0%
Magister	6	75%
PhD	2	25%
Total	8	100%

As it is shown in table 3.20, (75%) of the teachers have a Magister degree, whereas (25%) of them have a PhD. This indicates that the teachers in question differ as far as their teaching qualifications are concerned.

**Q3. Do you think that learning languages is a problem solving task?**

**A. Yes**

**B. No**

**Table 3.21**

*Teachers' Views about Language Learning*

Options	Numbers	Percentage
Yes	7	87%
No	1	13%
Total	8	100%

In Table 3.21, we can notice that (87%) of the respondents said that learning a language is a problem solving task. However, (13%) argued that learning a language is not a problem solving task. The last point of view may justify why some teachers encourage their learners to depend on memorization only.

**Q4. Which role do you most of the time play?**

**A.A Source of Information**

**B. A Guide**

**Table 3.22**

*Teachers' Role Inside the Classroom*

Options	Numbers	Percentage
A Source of Information	3	37%
A Guide	5	63%
Total	8	100%

As it is indicated in table 3.22, the majority of the teachers (63%) claimed that they prefer to play the role of guide. This means that they are following a learner-centred approach, where students construct their knowledge in a free and active manner, while teachers have the mission to provide learners with feedback. As a matter of fact, this method is useful way in teaching because it gives learners the opportunity to go beyond

what has been dealt with inside the classroom, which will develop the analytical and critical thinking skills among learners. However, (37%) of the teachers considered themselves as a source of information, i.e. they are the first and last controller during the whole processes of teaching and learning.

**Q5. Do you encourage your students to engage in your lessons?**

**A. Yes**

**B. No**

**Table 3.23**

*Students' Engagement in Lessons*

Options	Numbers	Percentage
Yes	8	100%
No	0	0%
Total	8	100%

The table3.23 indicates that all teachers encourage the engagement of students in the lessons this may occur through asking them questions, reminding them about the previous lessons or make them involved and engaged in activities. Through that, teachers' will raise the participation of their students and this will make them more active in constructing the knowledge. Involving the learners in different tasks is important and can be prerequisite in teaching a foreign language so as to enhance learners' level and, eventually, ensure their success. This goes with the famous saying of Benjamin Franklin "Tell me and I forget; teach me and I remember; involve me and I learn".

**Q6. Are the students active in your class?**

**A. Yes**

**B. Sometimes**

**C. No**

**Table 3.24**

*Students' Activity in the Classroom*

Options	Numbers	Percentage
Yes	5	62%
Sometimes	3	38%
No	0	0%
Total	8	100%

Table 3.24 shows that the majority of the teachers (62%) claimed that their students are active. (38%) affirmed that their learners are sometimes active. Being active/passive cannot be referred to only one reason since it depends on many factors such as: the nature of the module, the way of teaching, motivation, and students' attitudes and competencies.

**Q7. According to you, what can be the reasons behind their reluctance and passivity?**

In an attempt to answer this question, all the teachers agreed about three major factors that can cause reluctance and passivity. These three factors are: Demotivation, learners' environment and, the negative\obsolete traditional methods. It is true that focus on all these factors is challenging, yet it is not a convinced reason to discard the learning process of the students because with the absence of these processes students would not be developed and will remain passive.

**Q8. Before initiating a new lesson, do you refer to the previous one?**

**A. Yes**

**B. No**

**Table 3.25**

*Connection Between the Lessons*

Options	Numbers	Percentage
Yes	7	88%
No	1	12%
Total	8	100%

From table 3.25, it appears that the majority of the teachers (88%) refer to the previous lessons before starting a new one. These teachers want to establish a logical connection between the lessons and this what makes students' learning more meaningful. Revision and consolidation are generally techniques adopted by English language teachers so as to promote learners' level. Moreover, only (12%) teacher said that he does not refer to the previous lessons while initiating a new one and this may refer to the nature of module he teaches or to the factor of time, where he does not have much time to go back and talk about the previous lessons.

**Q9. By the end of each lesson, do you ask your students to recapitulate what has been dealt with?**

**A. Yes**

**B. No**

**Table 3.26**

*Teachers' Instruction of Recapitulating the Lesson*

Options	Numbers	Percentage
Yes	6	75%
No	2	25%
Total	8	100%

Table 3.26 demonstrates that (75%) of the teachers asked students' recapitulation of the new and lessons because they believe that learning is an active process where knowledge should be formulated meaningfully with the engagement of students in all phases of learning process. Nonetheless, (25%) affirm that they would not ask students to summarize new lessons at the end of each sessions because they see that they have not much time to achieve such a task. As a matter of fact, students' engagement in various phases of learning enable them to develop deep understanding of lessons and raise their awareness about the *meaningful learning* and its crucial principals in generating active autonomous learner rather than passive one who would end up with meaningless type of learning.

**Q10. Do you provide your students with handouts about the courses?**

**A. Yes**

**B. No**

Table 3.27

*Teachers' Use of Handouts*

Options	Numbers	Percentage
Yes	6	75%
No	2	25%
Total	8	100%

Table 3.27 indicates that (75%) of the teachers provide the students with handouts, and only (25%) of the teachers do not. This may refer to the nature of module they teach, as some modules or lessons require handouts while others do not.



**Q11. If yes, how often**

**A. Always**

**B. Often**

**C. Rarely**

**Table 3.28**

*The Frequency of Providing Handouts by Teachers*

Options	Numbers	Percentage
Always	4	45%
Often	1	27%
Rarely	2	28%
Total	7	100%

Table 3.28 shows that the majority of the teachers (45%) are always giving handouts to their students. To some extent, it is good to provide the learners with materials that they can rely on, but in a learner-centred approach, where learners are asked to construct knowledge meaningfully and depend on their cognitive abilities, handouts should not be the only source of information, rather they have to guide learners for further research. (27%) of the teachers claimed that they give the handouts from time to time. This category of teachers may provide handouts in the situations that require more explanations or details and when the teacher does not have chance to explain it during the regular session. (28%) of the teachers affirmed that they rarely provide learners with handouts. This may mean that those teachers dispatch handouts only in the case of extreme necessity.

**Q12. If no, what is/are the substitution of the handouts?**

Two teachers affirmed that they never provide students with handouts and they see that taking notes, books' chapters, slide shows, and videos as the best substitutions for the handouts. Their justifications are quoted as follows: "Learners are supposed to actively engage in learning the language, in understanding the concept, which would enable them

acquire analysing skills, critical thinking skills, and the ability to apply their knowledge in new situations".

"Students will not attend the sessions if they have the handouts of the previous years". It denotes that teachers select the quicker method which is providing students with handouts in order to finish the program and the syllabus of the module. This may refer to the common problem that faces teachers, which is the factor of time.

**Q13. when giving handouts, does the content contain:**

**A. Detailed information about the lessons**

**B. Key word, definitions and major ideas**

**Table 3.29**

*Teachers' Handouts content*

Options	Numbers	Percentage
Detailed information about the lessons	3	50%
Key word, definitions and major ideas	3	50%
Total	6	100%

As it appears in table 3.29 we have a tie. The first (50%) of the teachers propose detailed information in their handouts. In fact, this may encourage learners' passivity because they would be convinced that there is no need to make an extra effort and search for the information, since the teachers did the whole job. The second (50%) of the teachers declared that their handouts cover key words and definitions only. This means that the handouts in such case are nothing but a guideline, and when it comes to details the students should go beyond the handouts and make further researches.

**Q14. When correcting exams and tests, do your students use the same exact words, ideas, and paragraphs provided in your handouts?**

**A. Yes**

**B. No**

**Table 3.30**

*Students' Reproduction of Handouts*

Options	Numbers	Percentage
Yes	5	62%
No	3	38%
Total	8	100%

Table 3.30 shows that (62%) of the teachers notice a total reproduction of their handouts by students during the exam. This habit may be attributed to many reasons such as: teaching methods where learners are forced to make the same reproduction of teachers' handouts or it is because of the low awareness of students about the different learning strategies. Only (38%) of the teachers asserted that they have never noticed exact reproduction of handouts by the students. This may imply that the students are not using on total rote learning method, but they include some personal understanding and reformulation of information that is mentioned in their own teachers' handouts.

**Q15. If Yes, how often?**

**A. Always**

**B. Sometimes**

**C. Rarely**

**Table 3.31**

*The Frequency of Reproducing Handouts by Students*

Options	Numbers	Percentage
Always	2	40%
Sometimes	3	60%
Rarely	0	0%
Total	5	100%

As it is clear in the table 3.31, the majority of the teachers (60%) said that they sometimes find the exact reproduction of their handouts. This may mean that the The students still have the ability to manage their own learning and they reproduce teachers' words only when needed. Whereas, (40%) affirmed that they always notice this kind of practices by the students. These teachers may be the reason of students exact reproduction of handouts. To say it differently, they just accept the mentioned information in their handouts as corrected answers.

**Q16. When designing tests and exams, are the questions based on assessing students'**

**A. Understanding and analysis of the lessons**

**B. Capacity of Memorizing**

**Table 3.32**

*Teachers' Exam Design*

Options	Numbers	Percentage
Understanding and analysis of the lessons	8	100%
Capacity of Memorizing	0	0%
Total	8	100%

It appears that all the teachers agree about the same way of making questions of examination, which is based on thinking, understanding and analysing. This implementation of thoughtful examination will allow students to develop their critical thinking skills and construct knowledge meaningfully.

**Q17. Students' exact reproduction of the handouts' words is can be because of:**

**A. A poor writing style**

**B. Lack of comprehension**

**C. Lack of critical thinking skills**

**Table 3. 33**

*Attributes Behind Rote Memorization*

Options	Numbers	Percentage
A poor writing style	1	13%
Lack of comprehension	1	13%
Lack of critical thinking	6	75%
Total	8	100%

According to table 3.31 the majority of teachers (75%) said that the reason behind the students' reproduction of handouts is the lack of critical thinking skills. To say it differently, the students may have the potential, but they do not know how to think critically and use the information in an appropriate manner. (13%) of the teachers believe that students reproduce the same exact words of the handouts because of the poor writing style which makes them unable to express their ideas appropriately. (13%) of the teachers' view that the lack of comprehension can be one of the main reasons of rote memorization, I.e. Students just memorize the exact words of teachers' handouts for the sake of reproducing them in the examination without deep understanding and analysis.

**Q18. What is the learning type do you find more efficient in learning English?**

**A. Meaningful learning**

**B. Rote learning**

**C. Both**

Table 3.34

*Teachers' Preferred Learning Type*

Options	Numbers	Percentage
Meaningful learning	6	76%
Rote learning	1	12%
Both	1	12%
Total	8	100%

Table 3.32 displays that (76%) of the teachers are in favour of a *meaningful learning* which is the best way to help learners develop their critical thinking skills. While (12%) of teachers said that he prefers the combination between the two method. This may refer to the adaptation of the eclectic approach, where methods are switching depending on the situation. Only (12%) of teachers claimed that the rote learning is the more beneficial method.

**Q19. Based on your answer of Q 18 what is the language teaching method do you generally adopt?**

Though the answers show little differences, yet they all agree on the fact that they encourage autonomous learning, self-dependency and active learning. In other words, they strongly favour meaningful learning which is a good method to enhance the students' level and develop their ability to think in a critical way

### 3.2.5. Summary of Findings of the Teachers' Questionnaire

The aim behind the questionnaires administered to the teachers seeks to identify their views and perceptions towards rote learning and meaningful learning and which approach among the two is favoured.

The questionnaires have demonstrated that despite the fact that teachers do not give enough opportunities to the students to be autonomous, self-reliant, independent, they still believe in the fact that applying the principles of *meaningful learning* should be the primary concern of every teacher. That is, the students should be taught how to be active participants and seek information for themselves because they are not, above all, empty vessels waiting to be filled. They have to develop the opportunity to search for information, manipulate it and think critically about it.

#### Conclusion

For the students to learn confidently is crucial. The aim of foreign language learning/teaching should be geared towards the fundamental principles of *meaningful learning*, and should inevitably centre around that. The results obtained from the analysis of the teachers' and the students' questionnaires reveal that both of them are eagerly searching for the implementation of *meaningful learning* to enhance learners' level, promote learning and eventually, achieve successful results.

## General Conclusion

The aim of any educational system is to ensure the development of the social as well as the cognitive skills in order to create productive, creative, and active members in the society. The most valid system in education is the one which contains an effective application of teaching methods and techniques to generate a type of learners who could integrate their skills and knowledge critically in the academic life as well as in real life situations.

A glance at both the teachers' and the students' questionnaires denote that they are keen to adopt a *meaningful type of learning*, since *rote learning* has some drawbacks and cannot yield fruitful results. Indeed, *meaningful learning* is an effective way to engage the learners in the learning process, deepen their understanding, promote their learning, and develop their competencies and hidden potentials to.

In effect, the two hypotheses put forward at the beginning of the research stating that: there is a teachers' negative attitude towards rote learning and a positive one towards meaningful learning and that there is students' negative attitude towards rote learning and positive one towards meaningful learning have been confirmed.

### 3.3 Pedagogical Implications and Recommendations

From the results and findings obtained, this study can suggest the following:

#### - **Promotion of Autonomous Learning**

Students must be provided with authentic and meaningful teaching materials that develop their abilities to improve their autonomy, self-assessment, and critical thinking. More importantly, they must be given the chance to construct their own knowledge and test information independently.

#### - **Encouraging Students' Engagement**

This can be done by enabling students to take active roles in the classroom, expressing their views, discussing important issues, and getting involved in daily conversations.



#### - **Adopting Effective Teaching Methods**

It is necessary to implement fruitful strategies and adopt teaching methods that encourage the student to be self-reliant, reflective, and problem-solver. In other words, to opt for a meaningful type of learning.

#### - **Enhancing Students' Self-Confidence**

Challenging students academically and praise their efforts will help them to act independently and develop different competencies.

### **3.4. Research Limitations**

The current study has some limitations that affected its progress. They are as follows:

- The first obstacle faced the accomplishment of this study is the lack of primary and reliable sources. The university libraries are closed due the pandemic of Corona virus. Besides, the most popular E-libraries do not provide free access to their contents and do not accept the national bank accounts.
- Second, data collection tools are considered as the major obstacle that faced the researcher. Both teachers' and students' questionnaires are administered in an online form. As a matter of fact, this method of gathering data has many disadvantages, as it influences the reliability of the research.
- Third, some teachers and students did not answer the questionnaire, which led to the reduction of the participants' number. Moreover, some students showed a lack of seriousness when answering the questionnaire, accordingly, their answers are eliminated.
- Finally, an in-person meeting with the supervisor was not possible during the pandemic period (Corona virus) which may influence the quality of the work.

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# Students' Questionnaire

Dear students,

The present questionnaire serves as a data gathering tool for a research work carried out at the department of Letters and English Language at Guelma university. It has the aim of exploring your attitude towards the dichotomy Rote Vs Meaningful learning in EFL classes. Your answer would be very helpful to realize this aim. Hence, we would be thankful if you could tick your choice in the corresponding box(es), or give full answer whenever necessary.

Thank you very much for your time and cooperation

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**Rote learning:** It refers to the memorization of information based on repetition.

**Meaningful learning:** is active learning that aims at fully engagement of learners in the learning process. It involves understanding and linking new information to prior knowledge.

**Section One: General Information**

**1. How many years have you been studying English?**

.....years

**2. Were English language studies at the university your choice?**

A. Yes

B. No

**3. If yes, did you regret this choice?**

A. Yes

B. No

**Whatever your answer, please justify**

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

**Section Two: Learning Types and Techniques:**

**4. Are you:**

A. A dependent learner

B. An independent learner

**5. Your teachers play most of the time the role of**

A. A source of information

B. A guide

C. Others, please specify

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

**6. How often do your teachers provide you with handouts**

- A. Always
- B. Sometimes
- C. Rarely
- D. Never

**7. Do you rely on your teachers' handouts**

- A. Yes
- B. No

**8. How do you describe the need for the handouts?**

- A. Extremely necessary
- B. necessary
- C. Not necessary at all

**9. Do you look for further information and explanation that is not mentioned in the teachers' handouts?**

- A. Yes
- B. Sometimes
- C. No

**Whatever your answer, please justify**

.....

.....

.....

**10. During-the preparation for-tests and exams, what strategy you generally apply? (you can choose more than one option)**

- A. Memorization
- B. Comprehension
- C. Systematic organisation and selection of ideas
- D. Further reading of books and sources
- E. Others, please specify

.....  
.....

**11. When you memorize the content of the provided handouts, do you absorb it without deep understanding?**

- A. Always
- B. Sometimes
- C. Rarely
- D. Never

**12. Could you achieve high scores in tests and exams, without a total reliance on teachers' handouts?**

- A. Yes
- B. no

**13. Is it because**

- A. Teachers ask for the same exact information mentioned in their handouts
- B. Teachers' explanation is not enough
- C. You find yourself enable to analyse, select and collect the necessary information
- D. Others, please specify

.....  
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**14. When you learn a new subject, you prefer to**

- A. Establish connections between the new subject and other related subjects
- B. Focus on the content of the subject matter

**15. How long could you remember the information you learn (especially after tests and exams)?**

- A. Years
- B. Weeks
- C. Days
- D. Forget it after you learn it (or after you use it in the exam)

**16. In your opinion what is the most useful strategy that can be applied in learning English?**

- A. Rote learning
- B. Meaningful learning
- C. Both

**Could you please explain why?**

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**17. To what extent do you see the importance of critical thinking skill in the process of learning?**

A. Extremely necessary

B. necessary

D. Not necessary at all

**18. Any opinions, comments, and suggestions are welcome!**

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# Teachers' Questionnaire

Dear teacher,

The present questionnaire serves as a data gathering tool for a research work carried out at the department of Letters and English Language at Guelma university. It has the aim of exploring your attitude towards the dichotomy Rote Vs Meaningful learning in EFL classes. Your answer would be very helpful to realize this aim. Hence, we would be thankful if you could tick your choice in the corresponding box(es), or give full answer whenever necessary.

Thank you very much for your time and cooperation

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**Rote learning:** It refers to the memorization of information based on repetition.

**Meaningful learning:** is active learning that aims at fully engagement of learners in the learning process. It involves understanding and linking new information to prior knowledge.

**Section One: General Information**

**1. How long have you been teaching English?**

.....Years

**2. Could you please specify your degree?**

A. B.A

B. Master

C. Magister

D. Phd

**Section Two: Teaching/Learning Type**

**3. Do you think that learning languages is a problem solving task?**

A. Yes

B. No

**4. Which role do you most of the time play?**

A. A Source of information

B. A guide

**5. Do you encourage your students to engage in your lessons?**

A. Yes

B. No

**If yes, please specify how      You can provide options**

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**6. the students active in your class?**

- A. yes
- B. Sometimes
- C. no

**7. According to you, what can be the reasons behind their reluctance and passivity?**

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**8. Before initiating a new lesson, do you refer to the previous one?**

- A. Yes
- B. No

**9. By the end of each lesson, do you ask your students to recapitulate what has been dealt with?**

- A. Yes
- B. No

Whatever your answer, please justify?

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**10. Do you provide your students with handouts about the courses?**

- A. Yes
- B. No

**11. If yes, how often**

- A. Always
- B. Sometimes
- C. Rarely

**12. If no, what is/are the substitution of the handouts?**

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**Could you please justify your answer?**

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**13. when giving handouts, does the content contain:**

- A. Detailed information about the lesson
- B. Key words, definitions and major ideas

**14. When correcting exams and tests, do your students use the same exact words, ideas, and paragraphs provided in your handouts?**

- A. Yes
- B. No

**15. If Yes, how often?**

- A. always
- B. Sometimes
- C. rarely

**16. When designing tests and exams, are the questions based on assessing students’**

- A. Understanding and analysis of the lessons**
- B. Capacity of memorising the lessons**

**17. Students’ exact reproduction of the handouts’ words is can be because of:**

- A. poor writing style
- B. Lack of comprehension
- C. lack of critical thinking skills
- D. Others, please specify

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**18. What is the learning type you find more efficient in learning English?**

- A. Rote learning
- B. Meaningful learning
- C. Both

**Whatever your answer, please justify**

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**19. Based on your answer of Q 18 what is the language teaching method you generally adopt?**

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**20. Any opinions, comments, and suggestions are welcome!**

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