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Introduction to Cognitive -Psychology:

Lectures to Third -Year LMD Students of English

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General Introduction

The following lectures were delivered to third-year English major students in the university of Oran 2 for several academic years (2015/2016, 2016/2017, 2018/2019, 2019/2020, 2020/2021, 2021/2022, 2023/2024) . The two-term course in cognitive psychology and psychology of education can be divided into more than twenty lectures. Each semester includes ten lectures. The lectures are divided conceptually, and each one ends with tasks, and questions.

The first semester lectures delve into a variety of aspects of human learning and shed light on the different schools of thoughts that have attempted throughout the history of psychology to understand the nature human learning and the human mind.

The Second semester lectures, on the other hand, introspect the individual learners differences by pinpointing the cognitive and the personal differences highlighted by research .

Target students :

Although the course was designed and delivered to third-year students of the English department, the exhaustive overview of human learning and the in-depth outline of learners' differences presented can be a resource for master students majoring in language didactics and language acquisition

Course Objectives

The course has the following objectives :

First Semestre objectices

- **Equip students with theoretical knowledge about human learning and the human mind**
- **Introduce students to key concepts in cognitive and educational psychology**
- **Raise student's awareness about their own learning process by comparing the theoritical principles to their own learning process.**
- **Develop their critical thinking skills by comparing theoritical principles to practices in education and notably Algerian education and higher education.**

Second Semester objectives

- **Raise students' awareness of the main differences between learners**
- **Promote students' metacognitive introspection about their own learning.**
- **Develpo in students a sense of empathy and comprehension when dealing with different learners.**

Overall objectives of the course :

- **Enhancing students' theoritical understanding of the learning process and humans differences in learning.**
- **Develop students' critical thinking skills regarding the learning process.**

Course Procedures and Resources

The course is meant to be in lecture form; each lecture is intended to last forty minutes with students' intervention or class debates at the end of each lecture. Nevertheless, the course could also be used as a resource for seminars or tutorials.

The resources used for these lectures are mainly academic books and articles; as secondary resources, the author made use of academic websites which can also be used as resource for the students. These resources are mentioned in the list of references.

First semester lectures

Understanding Human Learning

Introduction to Human Learning

Though as it is accepted that the human being is a learning creature, and as human beings, we have been learning since our early age, understanding foreign language learning (our object of study), should start by answering a number of questions such as: How do human beings learn? Are there certain principles common to all learning acts? How has different learning theories understood the learning process? What kind of enlightenment has each theory brought forward? Undoubtedly, answers to such questions is likely to illuminate both teachers and students on what facilitate and hinder the learning process.

Indeed, learning is a complex and not a straightforward process. Such complexity can be perceived if someone attempts to train an animal, a dog for example. Before training a dog, we need to know the prerequisite knowledge and skills the dog has. Then, we should be clear about what we want to inculcate the dog with. Finally, we design the methods and the techniques that are likely to help the dog in acquiring the skills. In other words, we need a perception about the trainee, the training subjects, and the techniques to be used in the training. Similarly, as language teachers (trainer), we must have a comprehensive knowledge of entry behaviour of the person we want to instruct (the language learners), of the objectives we wish to reach, of methods that follows from our understanding of the two first factors, and of an evaluation procedure (Brown, 2007).

In fact, these are the kind of questions that several schools of thoughts in psychology have attempted to provide answers to. Each school of thought has its own perception of the learner, the subject to be learned, the role of the teacher or the trainer in the learning act and the techniques that this learner might be using.

The different views and perceptions of human learning may be revealed in a simple definition of learning. For example, as quoted in Brown (2007) for some, learning is " acquiring or getting of knowledge of subject or permanent skill by study experience or instruction". For others, it is "relatively change in behaviour tendency….the result of reinforced practice" (p.87).

Learning can be understood from different perspectives that is why there are several theories, extended definitions, and schools of thoughts on the topic of learning. In the following lectures the different perceptions of human learning are presented according to different psychologists and the schools they belong to. Starting with the behaviourists, who see learning as the process of acquiring behaviour, moving historically up to the constructivists and the social interactionists, who see learning as the building of understanding through interaction and

experience, it will be revealed that these definitions are not mutually exclusive, but rather complementary.

1The Behaviourists' view

It is claimed that philosophy is the mother of all human science disciplines including psychology with all its branches or subdisciplines (cognitive psychology, educational psychology…. etc). During the nineteenth century, philosophy and all the disciplines that grew out of it (psychology, sociology, anthropology…etc) perceive acceptance and responsibility in adhering to the natural science method. By bringing the rigour of the scientific method to the field of psychology, early psychologists had to neglect the mind and focus only on what is overt and observable. Put in another way; to explain and understand human behaviour, they have to look at observable behaviour. Adherence to the scientific experimental methodology led psychologists to seek understanding of human learning by investigating animals' behaviour (such as rats and dogs). This form of enquiry was known as 'logical positivism". Also, adherence to scientific method meant overlooking unobservable aspects of human behaviour. These include feelings and thoughts. Thus, for many years, the predominant view in Western psychology was understanding human learning should start by understanding animal behaviours (Williams&Burden,1997). The most influential behaviourists throughout the history are the Russian Ivan Pavlov and the American B.FSkinner

1-1Pavlov's Classical Conditioning

Ivan Pavlov trained a dog to salivate to the tone of tuning fork through the procedure that has come to be labelled classical conditioning. For Pavlov the learning process consists of the formation of associations between stimuli and reflexive responses. We are all aware that certain stimuli automatically produce certain responses/ reflexes and we have observed that sometimes these reflexes occur in response to stimuli that appear to be indirectly related to the reflex.

Pavlov used the salivation response to the sight or smell of food (unconditioned response) in many of his pioneering experiments. In the classical experiment, he trained the dog by repeated occurrences to associate the sound of the fork with salivation until the dog acquired a conditioned response: salivation at the sound of tuning fork. A previously neutral stimulus had acquired the power to elicit response (Brown,2007).

Drawing on Pavlov's findings, Waston (1913) coined the term behaviourism. Waston argued that human behaviour should be studied objectively, rejecting mentalistic notions of

innateness and instinct learning. He adopted classical conditioning to explain all learning. This can be reached by focussing on overt behaviour and rigorous adherence to the scientific method.

Like Pavlov, Watson investigated conditioned neutral stimuli power in eliciting response or conditioned reflexes. In his famous experiment, he used an infant who he called little Albert. The infant was exposed to different stimuli: a rabbit, a dog, a piece of wool, masks, a monkey, and a burning newspaper to see his reaction. Initially, he showed no fear for the objects. It was not until the objects were paired with a loud sound (banging of a metal with a hammer that he began to cry after being showed a white rat. Before the experiment, the white rat was a neutral stimulus for the child because it didn't elicit any kind of response, but after it acquired the quality of conditioned stimuli and the emotional response of crying became the conditioned response (Stangor & Walinga, 2014).

Watson adopted classical conditioning theory to explain all learning. By the process of conditioning, we build an array of stimulus-response connection and more complex behaviour are learned by building up series or chains of responses.

1-2 Skinner's operant conditioning

Skinner (1938) adds a unique dimension to behaviourism psychology. For him the classical conditioning of Pavlov was a specialized way of learning used by animals and playing little part in human learning. Skinner's operant conditioning attempted to account for most of human learning and behaviour. Operant behaviour is behaviour in which one operates on the environment. According to Skinner, the events or stimuli –the reinforcer- that follow a response constitute a powerful force in the control of human behaviour. Reinforcers are far stronger aspects of learning than mere associations of stimulus with following the response.

Operants are classes of responses. Crying sitting down, walking are operants. They are sets of responses emitted and governed by the responses they produce. In contrast **respondents** are sets of responses elicited by certain identifiable stimuli. Certain physical actions are respondents such as crying. In other words, respondents are set of responses identifiable by certain stimuli or some physical reflex actions. To sum up, Operants are elicited/ emitted by the consequence they produce while respondents are elicited by physiological reaction to an external stimulus (Brown, 2007).

Crying can be both a respondent and operant. Sometimes crying is elicited in direct reaction to a hurt. Sometimes it is emitted response that produce the consequence of getting fed, cuddled, or played with. Operant crying can be controlled. If parents wait until a child's crying

reaches a certain intensity before responding, loud crying is more likely to appear in the future. If parents ignore crying (when they are certain that it is operant crying, eventually the absence of reinforcers will extinguish the behaviour. Operant crying depends on its effect on the parents and is maintained or changed according to their response to it.

Skinner's theories had a great impact on our understanding of human learning and on education. Following his model, one is led to believe that virtually any subject matter can be taught effectively and successfully by a carefully designed programmed of step-by-step reinforcement.

As regard language, Skinner describes it as a system of verbal operants and his understanding of language and learning led to a new era of in language teaching in the 1950's.

In brief, following the behaviourists' view, the human being is an organism capable of a wide repertoire of behaviourism and the occurrence of these behaviours is depended upon three crucial elements in learning.

1- **A stimulus, which serves to elicit behaviour**
2- **A response triggered by a stimulus**
3- **A reinforcer which serves to mark the response as being appropriate or inappropriate and encourages the repetition or suppression of the response in the future. The below diagram summarises second language learning according to operant conditioning (Richards &Rodgers, 2000)**

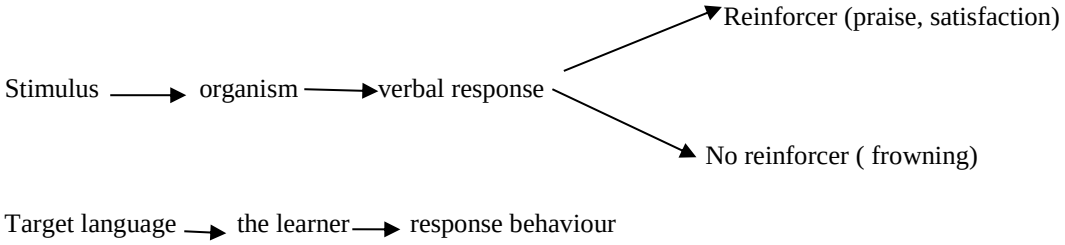


Figure 1-1 The behaviourists' view of language learning (source:Richards&Rodgers,2000)

the reinforcement is a vital element in the learning process because it increases the probability that a behaviour will occur again and eventually becomes a habit.

1-3 Summary of the behaviourists' view on teaching and learning:

Teaching through behaviourism consists in

1. **Making explicitly clear what is to be taught, i.e. inductive way of teaching**
2. **Tasks should be broken down into small sequential steps**
3. **Students are encouraged to work at their own pace by means of individualized programmes**
4. **Learners are provided with immediate positive reinforcement**
5. **Mistakes are frowned at and are not allowed to be formed as they are considered bad habits or unrequired responses.**

Language mastery: It is viewed as acquiring a set of appropriate language stimulus-response chains.

The learners: They are perceived as organisms that can be directed by skilled training teaching to produce correct responses. They are viewed as Tabula -Raza or empty containers to be filled by a knowledgeable or skilled trainer. Put differently, learners are passive and need to listen or watch and follow by reacting appropriately to the stimuli.

The teacher/trainer: the teacher is regarded central in the learning operation. He/She should be skillful and knowledgeable to serve as a model and to manipulate the reinforcer through a wise use of punishment (extinguisher of bad behaviour) and reward (reinforcer of the target behaviour)

Teaching techniques focuses on the external manifestation of learning rather than on the internal processes. Therefore, the language classroom looks like a symphonic orchestra with a lot of repetition and exercise drills.

1-4The Rise and Fall of Behaviourism in Education

Behaviourists' views of learning were taken up widely by educators in general and by language teachers in particular. The most influential point made by Skinner (1968,1967) and his followers is the crucial part played by parents and educators in setting appropriate learning conditions and ensuring particular kind of behaviour. Most notably, the notion of the reinforcer had a great influence in the field of education.

Nevertheless, behaviourism received a number of criticisms. One of these concerns the ethics of behaviour modification which was perceived as a form of manipulation or 'brainwashing' rather than education. Indeed, the behaviourist's perception of learning as a process of habit formation and that learners are passive organisms to be trained was refuted by educators as irrational and illogical. Thee focus on external manifestations of learning prevent educators from seeing the whole picture of human learning. One of these educators is Paolo Freire, the author of *Pedagogy of the Opressed***,** in which makes an analogy between learners in the behaviourist approach and bank accounts where teachers deposit content that they will ask for the day of the exam.

Furthermore, there are certain sophisticated human learning that behaviourism and adherence to experimental methods could not account for, as for example human interaction and communication. Behaviourism, as demonstrated by Chomsky, could not account for human beings' abilities to produce an infinite number of language utterances and structures. These drawbacks inevitably led to a new era in psychology, namely the cognitivists era.

1-5 Question and tasks about the behaviourists

Work in pairs or groups to discuss and answer the following questions

1- Twaddell (1935, p.57) says: " the scientific method is quite simply the convention that mind does not exist". Why do the behaviourists deny existence of the mind in their investigation of human learning? What are the advantages and disadvantages of focusing on mainly overt observable behaviour in the learning process?

2 -According to Brooks, the main missions of the language teacher in the classroom should be the following:

Introduce, sustain, and harmonize the learning of the four skills in this order:

hearing, speaking, reading and writing

Model the various types of language behavior that the student is to learn.

Teach spoken language in dialogue form.

Direct choral response by all or parts of the class.

Teach the use of structure through pattern practice.

Guide the student in choosing and learning vocabulary.

Show how words relate to meaning in the target language.

Get the individual student to talk.

Reward trials by the student in such a way that learning is reinforced.

Teach a short story and not her literary forms.

Establish and maintain a cultural is land.

Formalize on the first day the rules according to which the language class is

to be conducted, and enforce them.

(Brooks,1964, p.143 as cited in Richards &Rodgers, 1999,p p.56-57)

In groups discuss the ways in which these tasks pertain to the principles of behaviourism as regard learners role, and teachers role.

What do you think of theses teacher's tasks? What might be the strengths and weaknesses of such a language classroom?

2 The Cognitivists' view

While the behaviourists' centre of interest and object of study was the external manifestations of learning, the main object of study of the cognitivists are the internal mental processes involved in human learning. These include: aspects such as how people build up and draw upon their memories and the way in which they become involved in the process of learning (Williams& Burden, 1997).

In contrast to the behaviourists' view, the learner is seen as an active participant in the learning process. Therefore, the learner is encouraged to observe, think, categorize, and hypothesize. All of these are mental processes which are the object of study of cognitive psychologists. In brief, cognitive psychology is best described by George Miller's as 'the science of mental life'. Or as Nadel and Piattelli-Palmarini, 2004, p.xiii as cited in Dornyei, 2014 p.7) argue 'scientific study of minds and brains, be they real, artificial, human or animal'. It is a rich and diverse area of study of the mind that has been fuelled by a universal academic interest in understanding the operations of the brain as well as by the growing excitement about the fact that for the first time in human history, some realistic ways have been found to peep into what have been for centuries considered as a ' the black box' (the human mind).

The rise of cognitive sciences was revealed in the number of university programmes, academic journals, international conferences, handbooks and encyclopaedias that appeared at the end of the 1950's. In an interview, George Miller, who is considered to be the father of the field, said that the starting point of the discipline was 11 September 1956. That was the date of a meeting at the MIT of cognitivists from computer science, linguistics, and psychology. They realize that they share the same interest in the human mind, yet every field from is unique perspective. Four scholars, namely: Miller, Chomsky, and Newel and Simon laid the foundations of the cognitivists' movement and demonstrated the hugely interdisciplinary nature

of this field that draws on linguistics, psychology, artificial intelligence, computer science, philosophy, neuroscience and anthropology (Dörnyei, 2014).

Overall, there are three main trends in investigating human mental life. First, the information processes theorists who draw the analogy of the human brain as a complex computer; they investigate how it works in terms of rules and models of how different aspects of learning take place. The work on models of memory and information processes are examples of study subjects of this approach. The second trend in cognitivism is related to studies on human intelligence while the third trend is the so-called constructivists movement which grew from the work of Piaget and encompasses George Kelly' personal construct psychology. As the name indicates, this movement suggests that the human mind constructs its own sense of the world. Each of these trends is going to be presented through the work or the approach of one or two of their respective scholars.

2-1Information processing theories

As the name implies, information processing theorists within the cognitive school of thought are concerned with the mental processes involved in human learning. Put differently, information processing theorists' object of study is the " how" of the learning process rather than the "what" (Manolopoulou-Sergi, 2004). Traditionally information processing psychologists have attempted to cast light on the processes that the human brain utilizes in learning. Taking the computer processes as an analogy, the mental processes includes, attention, storage (memory), retrieval, and automaticity.

Although as Williams et al.(2015) note "information processing theorists have inhabited a very different world from social and educational psychologists with little interaction between the fields" (as their focus is mainly on the working of the brain), several SLA theorists and second language educators (Ellis,1985; McLaughlin,1987; O'Malley and Chamot,1990; Skehan's, 1998; Purpura,1999; Robinson(ed),2001) have been inspired by information theorists in providing their second language acquisition models. Indeed, concepts like attention and noticing, language input and output are terms borrowed from information theorists' models. Similarly, the extensive work on learning strategies by O'Malley and Chamot (1990) and Oxford (1991) draw its foundations on information processing models. Among the deeply investigated areas by information processing theorists are attention and memory.

2-1-1 Attention

Attention is a critical aspect in human learning; it is central to perception, recognition, and any action a learner chooses to make. However, there is not a common consensus of what attention really means and its definition remains rather philosophical as Rutledge (2025) states. One such a definition is William James' who wrote in 1890:

> Everyone knows what attention is. It is the taking possession by the mind in clear and vivid form, of one out of what seems several simultaneously possible objects or trains of thought...It implies withdrawal from some things in order to deal effectively with others (James, 1950, p. 403 as cited in Rutledge, 2022, para 3)

Experience has shown that learners vary in the degrees of attention they pay to their learning tasks which inevitably impact their learning. Therefore, several models have been suggested to understand attention

2-1-1-1 Broadbent's "bottleneck theory" was the first model of attention; it was called "bottleneck theory" because information had to be filtered to restrict the flow to a cognitively manageable amount (Anderson et al., 2002). In his seminal paper, Broadbent (1958) hypothesised that people have an internal, intentional selection or filtering method that directs attention to focus on certain stimuli over others. His filter theory was a serial processing "early-selection" model where the filtering occurred in the early stages of information processing based on physical properties, such as pitch or volume. In the bottleneck model, attention is directed to the information that passes the filter or to salient information that leads to a shift in attention limited by single channel (Rutledge, 2022)

2-1-1-2Treisman's attenuation theory: Treisman (1964) agrees with Broadbent's theory of an early bottleneck filter. However, the difference is that Treisman's filter attenuates rather than eliminates the unattended material. Attenuation is like turning down the volume so that if you have four sources of sound in one room (TV, radio, people talking, baby crying), you can turn down or attenuate 3 to attend to the fourth. This means people can still process the meaning of the attended message(s). In her experiments, Treisman demonstrated that participants could still identify the contents of an unattended message, indicating that they were able to process the meaning of both the attended and unattended messages.

2-1-1-3 Shiffrin and Schneider's Dual-Process Theory (1977) (Automaticity)

Automaticity refers to the degree of attention a task may require based on its familiarity. Shiffrin and Schneider (1977) distinguished between automatic processes (like driving) that need little attention and deliberate processes (like conversing) that require more attention. With practice, tasks become more automatic and less attention-demanding. The more a process has been practiced, the less attention it requires.

SLA research has drawn extensively from findings in information processing about attention. For example, the notion of the "bottleneck" theory or the filter can be found in the distinction between input and intake that SLA researchers adapt to account for the processes of language acquisition. The former refers to what is available to be learned (input), whereas the latter refers to what is cognitively registered through learners' perceptions and further processing (intake). Chaudron (1985) further distinguished between an initial stage involving perception of input, or 'preliminary intake' from a later stage involved in the 'recoding and encoding of the semantic (communicated) information into long term memory' leading to 'final intake' (1985, p.2).

In particular, the Attention-Processing Model of second language acquisition proposed by Mclaughlin (1987) echoed Kahneman's (1973) capacity model which posits that attention is a limited capacity and that is why automaticity is required to fulfil more complex tasks. To reach automaticity in second language acquisition, learning should progress through two main stages: The first is the controlled processing that needs high level of conscious attention; the second is the automatic processing stage which is fast, unconscious and does not need focused attention. The end goal of second language learning is to reach fluency which is equated by McLaughlin (1987) to automaticity, and the path to this automaticity is repetition and practice.

Research on attention has evolved throughout the years from simple flittering models to systems involving complex capacities such as practice, effort, unpredictability and complex brain functioning. Recent advances in technology have made it easier to unveil the working of the human brains. It is hoped that such progress may bring satisfactory explanations to how the brain process the language (Williams et al. 2015).

In addition to attention, memory has been deeply investigated by information processing theorists. Manolopoulou-Sergi argues "Within the framework of the information-processing

model, at the input stage, perception and attention are of vital importance, whereas memory is the key factor in the central processing and output"(2004, p.431)

2-1-1-4 Tasks and questions about attention

A) Referring to what you have studied about attention, fill in the missing words in this paragraph.

Attention is a key aspect of learning because it helps learners in **(1)**_____, **(2)**_____, and taking action. According to William James, attention is the taking possession by the **(3)**_____ of one object or thought among many. Broadbent's **(4)**_____ **theory** explained that information is filtered at the **(5)**_____ stage to manage what is processed. Treisman later suggested that the filter **(6)**_____ rather than eliminates unattended information. Shiffrin and Schneider (1977) distinguished between **(7)**_____ processes needing little attention and **(8)**_____ ones requiring more. In SLA, "input" is what can be learned, while "(9)_____**" is what is actually processed. McLaughlin (1987) said learners move from (10)**_____ to automatic processing to achieve **fluency**.

B) Complete each statement by choosing the right alternative

1)Broadbent's model is an:
a) Early-selection model b) Late-selection model c) Attenuation model

2)Treisman's filter:
a) Eliminates b) Divides c) Attenuates unattended information

3)Automatic processes are:
a) Slow b) Fast and effortless c) Always conscious

4)In SLA, "intake" refers to:
a) All available input b) What is cognitively processed c) What is forgotten

5)The Attention-Processing Model was proposed by:
a) Kahneman b) McLaughlin c) Broadbent

2-1-2 Memory

Several definitions can be found about memory, one of these states that memory is the "general ability, or faculty, that enables us to interpret the perceptual world to help organize responses to changes that take place in the world" (Eliasmith,2001, p.1). The implication of this definition is that the memory has a structure and that it must be divided into parts, each part is in charge of a particular task. As for studies on attention, there seems to be no agreement about the structure of memory and the function of each class within it. Several theories and models have been proposed to date to understand the structure and function of memory. Among these

are the multi-process view or the stage theory model by Atkinson and Shiffrin (1968) and more recently the working memory model built by Baddeley

2-1-2-1 Atkinson and Shiffrin's multi-process theory

They suggest that memory operates through three distinct systems: sensory memory, short-term memory (STM), and long-term memory (LTM). These systems are connected by processes of attention, rehearsal, and encoding that determine the flow of information through the memory system. The authors emphasized that each system has different capacities, duration, and encoding mechanisms.

Sensory Memory- It is the initial stage in stimuli perception in this model; It receives and briefly holds sensory information from the environment. Visual stimuli or auditory input are held for a fraction of a second. This information is stored temporarily before being either discarded or passed on to short-term memory. This stage is very limited in time and information stored at this level decays rapidly if they are not transferred to the next stage (Lutz &Huitt, 2003).

Short-Term Memory (STM) is the second stage in this process. It is considered the active and conscious memory as it is the stage where information is being processed. However, Short-term memory, as its name suggests, has limited capacity and duration. Its capacity was measured by Miller (1956) and was referred to as "the magical number seven, plus or minus two"; this theory assumes that a normal human's STM can hold only seven items plus or minus two items; this rule has been applied in second language vocabulary teaching. Its limited capacity is estimated at about 15-30 seconds before the information fades away. To keep information in STM, techniques such as maintenance rehearsal (rote learning) and mnemonic strategies are used. Yet other techniques are to be developed and used to transfer information to the long-term memory.

Long-Term Memory (LTM)- Long-term memory, as the final storage system, can hold an enormous amount of information for extended periods—ranging from hours to a lifetime. Information enters LTM through rehearsal and encoding strategies, which can be influenced by attention, repetition, and emotional

While Atkinson and Shiffrin acknowledged that memory involves multiple processes, their model implied a sequential and hierarchical flow of information between different memory systems, with each stage representing a distinct process in the overall memory system.

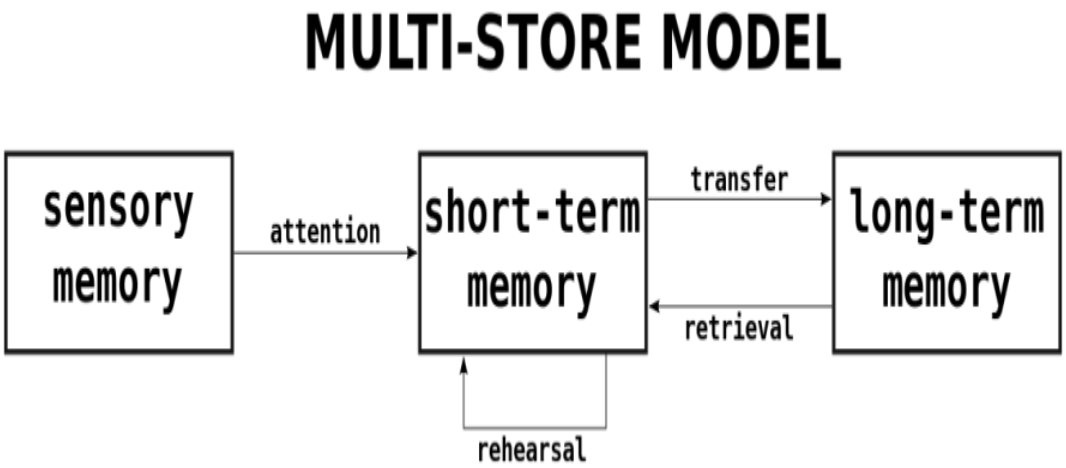


Figure 2.1. *Atkinson and Shiffrin Multi-Store Model (Wickicommons)*

2-1-2-2 Baddeley's Working memory (the multi-components model)

Working memory is an alternative to Atkinson and Shiffrin muti-store system; it is a dynamic system responsible for the short-term storage and processing of information. It is often confused with short-term memory, but the two concepts differ significantly. Short-term memory merely holds information for a brief period; by contrast, working memory is in charge of manipulating actively that information (Dosher, 2003; Sternberg & Sternberg, 2017).

The concept of working memory (WM) was first proposed by Baddeley and Hitch's (1974-1999) to suggest that STM is not a single system or stage for short term storage. Instead, of the simplistic short-term storage proposed by Atkinson and Shiffrin, the WM model can account for the different operations used by the STM to process, treat, and hold information and how it is related to long-term memory. The model was developed throughout twenty-five years (1974-2000). Initially the model comprises three main components to which a fourth was added. These components are: 1)**Visuo-spatial Sketchpad**: represented by the inner eye; its role is to detect the visual stimuli to manipulate and maintain them. It is a system for the manipulation and the maintaining of the visual images. 2) **Articulatory-phonological loop**: it is represented by the inner ear; it detects the verbal content and manipulated it. The verbal content is then either stored using different techniques or transferred to the long-term memory. 3) **Central Executive**: it is the most complex component in this model. Both the verbal content and the visual images are regulated by the central executive. During the process of gathering and treating information from other components, the CE is regulated by an attentional span model. The CE capacity to process, treat, and respond is the WM span task and it is related to comprehension and correlate highly with general intelligence (Saadldeen- Al-faris & Yhya

Jasim, 2021) .4) **Episodic buffer**: in his article 'the Episodic Buffer- New Component of Working Memory', Baddeley (2000) argues that this component functions as the memory component of the CE. As shown in figure 2-2 below, the data supplied by the Visio-spatial pad and the phonological loop are stored in the episodic buffer and some of them are going to be transferred to the long term memory.

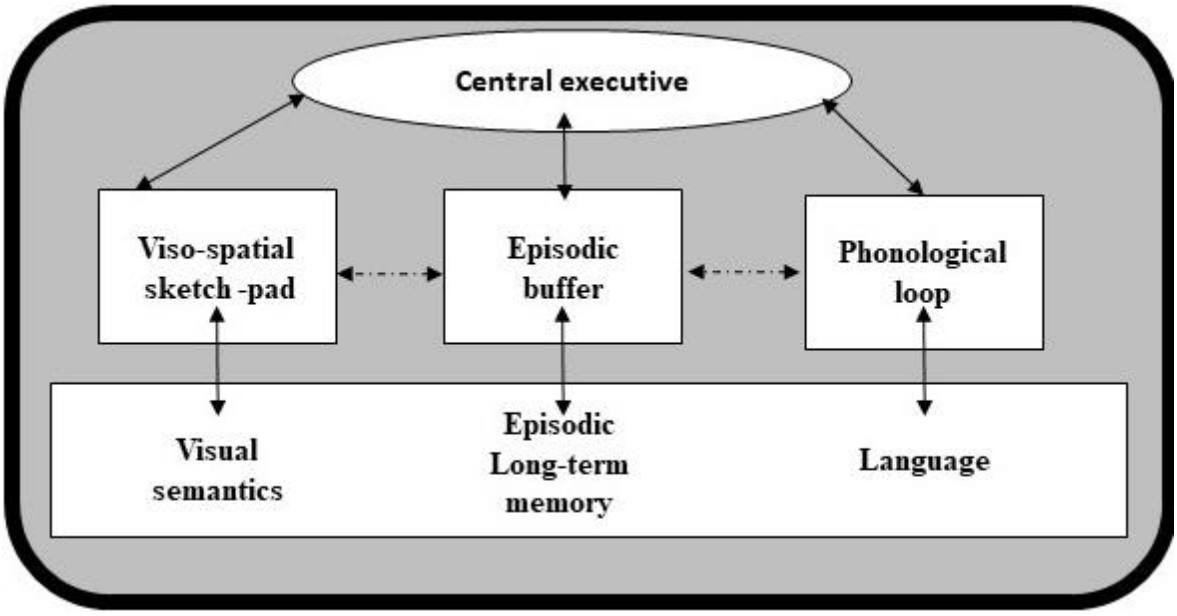


Figure 2-2 *WM Model* (adopted from Baddeley, 2000, p.421 source Saadaddeen-Al-Faris & Yahya-Jasim, 2021)

WM is extremely important in the context of language learning since the process of language learning involves vocabulary and grammar memorisation, high levels of attention and recall, particularly during speech production. Ashcraft (2005 as cited in Atarriba &Basnight-Brrown, 2009) explains: "... when word meanings are retrieved from long-term memory and put together to understand a sentence, working memory is where this putting together happens. It is the location of conscious, attention consuming mental effort" (p. 165). In addition, it was observed that the phonological loop or the phonological memory (PHM) has such an important role in second language acquisition in the initial stages of language acquisition; and it was also responsible for individual differences in L2 learning. In a study involving native speakers of English studying Spanish as a second language, O'Brien, et al. (2006) found that individuals with good PHM improved their narrative abilities in the L2 within 13-week testing period much better than those with low capacity of PHM. Interestingly, the researchers found that during the initial stages of L2 learning, great demands and efforts are made by the PHM to learn content words and lexis. Later, as the level of proficiency goes up, the PHM capacity is Oriented towards complex rules of grammar. Finally, when the bilingual reaches a native like

proficiency, the PHM will not be solicited as speech comprehension and production becomes automatic (O'Brien et al, 2006 as cited in Altarriba & Basnight- Brown, 2009). The notion of automaticity was further explained by Ulman's (2001) declarative/ procedural model

2-1-2-3 Ulman's Declarative/ Procedural model

According to Ulman (2001) the data and information stored in the long-term memory (LTM) system is divided into two other sub-memory systems: the declarative memory and the procedural memory. The Declarative memory is the explicit or the conscious memory system, it holds information that we can consciously tell we know whereas the Procedural memory stores information and knowledge that is not necessarily accessible to our consciousness (Saadeldeen Al-Faris & Yahya Jasim, 2021).

The Declarative memory includes knowledge about facts and events related to the self and the world. It is described as knowledge that represent and encompasses **the semantic memory** (knowledge of facts about the world). There is also the **episodic memory** which comprises the events that a person experience. Last but not least, the declarative memory includes the **spatial memory** which is related to orientation and situating one's self within a particular space. The declarative memory learning is fast and can happen within one exposure, but it places great demands on the WM attentional resources and benefits from intention to learn (Ulman,2001).

Figure2.3 below shows the specific brain structures that subserve declarative memory. They include, primarily, the bilateral medial temporal lobe structures, including the hippocampus, and associated neocortical regions (figure 2.3).

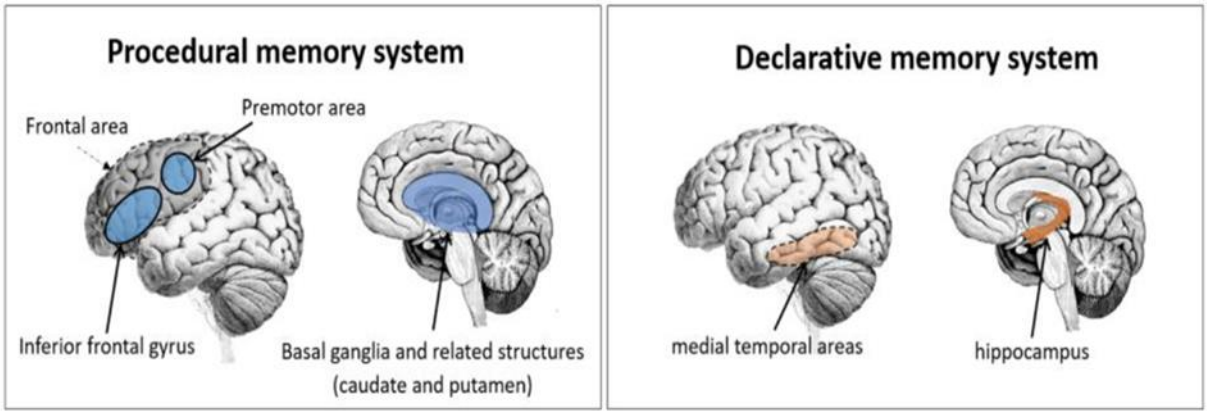


Figure 2.3. Brain areas associated with procedural and declarative memory (source Suzuki et al.2023)

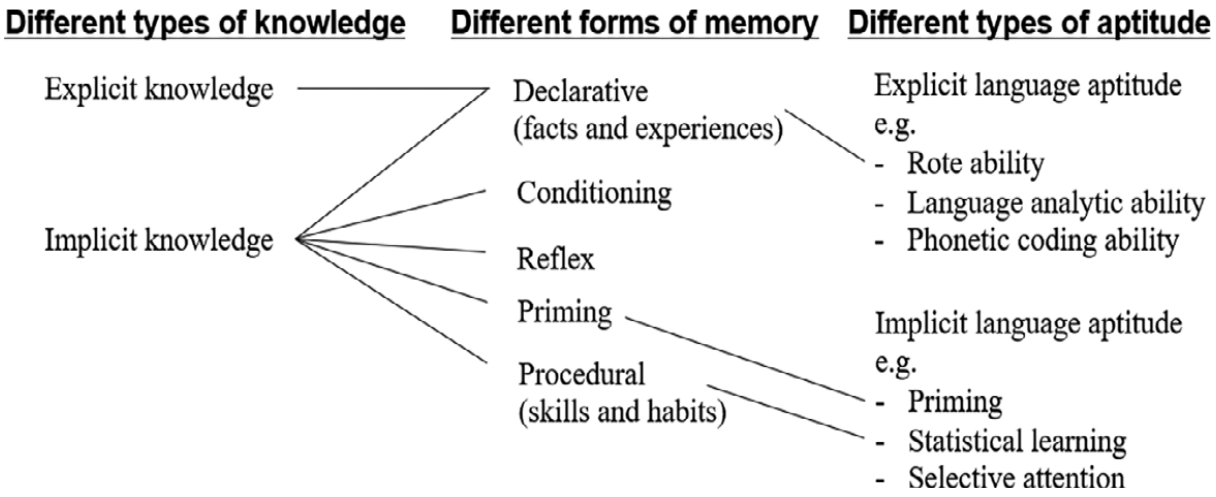
The procedural memory system is the non-declarative system that underlies motor, cognitive skills, and habit learning. It is often described as knowledge of 'how' (Ohlsson, 2008). The work of procedural memory appears when a task requires the combination of multiple actions and skills like riding, driving, typing fluently, or even video gaming. One's hands knowing what to do whereas the other senses are attending to other thoughts or actions. Unlike declarative, procedural memory is unavailable to conscious awareness. The system is rooted in portions of the frontal cortex (including Broca's area and the supplementary motor area), the basal ganglia, parietal cortex and the dentate nucleus of the cerebellum as figure 2.3 above demonstrates.

Although procedural memory is implicit, it should be noted that not all non-declarative memory is procedural as there are other types of non-declarative or implicit memory (Morgan-Short at al., 2014).

The two other types are classical conditioning and priming. Classical conditioning refers to situations where the memory was trained via the process of classical conditioning (see 1-2 Pavlov's classical conditioning above) to unconsciously emit certain responses (behaviours) to stimuli which were previously neutral. The classical conditioning enables learners to learn unconsciously without paying attention or making effort. Memory is manifested in the form of the conditioned stimulus like the sound in the Pavlov's experiment. Priming, which is the last form of implicit memory, was defined by Schater (1987 as cited in Al-Faris & Jasim, 2021) "an effect of implicit memory in which a subsequently influenced response of a stimulus comes from an exposure to another stimulus" p.5673. Put simply, a "word can be recognised faster if

it has been primed by an earlier presentation of the same word" (Ulman,2001 p. 721). There are three types of priming: lexical, semantic, and morphological priming. Ulman (2001) mentioned the example of the verb walk if introduced to learners in the past form (e.g. He walked to school) students are likely to use the verb walk later in the past form. This suggests that grammar patterns should also be primed. The DM/PM are said to subserve different types of knowledge and different domains in language acquisition be it L1 or L2 as figure 2.4 below suggests.

Figure 2.4 Explicit-Implicit and Declarative-Procedural Knowledge (source: Suzuki et al.2023).



Several models to date have been proposed to account for the role of each of the PM and the DM in L1aquisition and L2 acquisition (e.g.DeKeyser, 1995, 2007; Paradis, 1994, 2004; Ulman, 2001). For example, DeKeyser (2007) suggests that the grammar is acquired and contained through the implicit and the PM mode, the declarative memory has no role in the acquisition of L1 syntactic rules. On the other hand, L2 acquisition goes through three stages. In the first stage, the rules of grammar are learnt using the declarative memory. They are memorised explicitly. The second stage is the proceduralization of the syntactic rules. Through practice, the grammar rules began to be used implicitly. The third and last stage is when the grammar rules become thoroughly implicit and the PM is used. It is when the speech production becomes automatic, i.e. when native -like fluency is achieved.

Similarly, Ulman (2001) posits that L1 grammar rules lie mainly on the PM. Put differently, the L1 syntax is learnt and stored in the PM; therefore, it is used implicitly. The L1 lexicon, in contrast, is stored in the declarative memory in the temporal lobe of the brain because lexis refers to facts and knowledge. Like L1, L2 lexicon is learned and stored in the temporal lobe, that is in the declarative memory. Likewise, the L2 grammar rules are learned using the

explicit declarative memory; only with enough practice and exposure that some grammar rules can move to the procedural memory, but with less efficiency than the L1.

At first glance, the crude character of the work of information processing theorists seems remote from the field of education. In fact, it seems, rather, closer to the medical field and in particular neuroscience as its main focus is the stages and the processes that information and knowledge go through before it is acquired by the memory of a normal human being as well as the areas of the brains responsible for these stages. Nevertheless, the work of the information processing theorists has been decisive in illuminating researchers and educators including language educators and researchers about learners' specific cognitive processes. One information processing theorist, in particular, has had direct influence on education is Dvid Ausubel. Before we move to Ausubel's meaningful learning theory, below are some questions and tasks about memory.

2-1-3Tasks and questions about memory

Based on the knowledge you acquired from the previous lecture on memory, discuss and answer the following questions in pairs or in groups.

A) Tick the correct answer A, B, C, or D

1) • Memory capacity refers to:

A. The duration information can be stored

B. The amount of information that can be held in memory

C. The type of information stored

D. The process of retrieving information

2)• The typical capacity of short-term memory, according to Miller (1956), is:

A. 3 ± 1 items

B. 5 ± 2 items

C. 7 ± 2 items

D. 9 ± 3 items

3)• According to Atkinson and Shiffrin, information passes through which sequence?

A. Long-term → short-term → sensory

B. Sensory → short-term → long-term

C. Sensory → long-term → short-term

D. Short-term → sensory → long-term

4)• In the Multi-Store Model, the function of rehearsal is to:

A. Retrieve information from long-term memory

B. Transfer information from sensory memory to long-term memory

C. Transfer information from short-term memory to long-term memory

D. Increase the capacity of short-term memory

5)• Baddeley's model, the **central executive** is responsible for:

A. Storing visual and spatial information

B. Holding auditory and verbal information

C. Coordinating the activities of the subsystems

D. Rehearsing information verbally

6)• The **phonological loop** handles:

A. Visual and spatial data

B. Speech-based information

C. Episodic events

D. Semantic knowledge

7)Baddeley later added the **episodic buffer** to:

A. Increase storage capacity

B. Integrate information from different sources

C. Replace the central executive

D. Eliminate the need for rehearsal

8)• According to Ullman, **declarative memory** is responsible for:

A. Grammar rules and implicit knowledge

B. Motor skills and habits

C. Learning vocabulary and facts

D. Automatic speech production

9)• **Procedural memory** is most closely associated with:

A. Conscious recall of facts

B. Unconscious learning of skills and sequences

C. Episodic recollection

D. Semantic storage of knowledge

10)• In language learning, Ullman's model suggests that:

A. Grammar depends on declarative memory

B. Vocabulary depends on procedural memory

C. Grammar depends on procedural memory, and vocabulary on declarative memory

D. Both grammar and vocabulary depend on the same system

B) Answer one or two of the following questions in a form of a short essay.

1. Explain the main difference between **short-term memory** and **long-term memory** in terms of capacity and duration.
2. Describe the three main components of **Baddeley's Working Memory Model** and their functions.
3. What are the main stages of memory in **Atkinson and Shiffrin's Multi-Store Model**, and how is information transferred between them?
4. Give a real-life example showing how **declarative** and **procedural** memory can work together in a learning situation.

2-1-3 Ausubel's meaningful learning and subsumption theory

David Ausubel, the American psychologists and psychiatrist, introduced his theory on meaningful learning in 1963 which has had a great influence on cognitive psychology and psychology of education until nowadays.

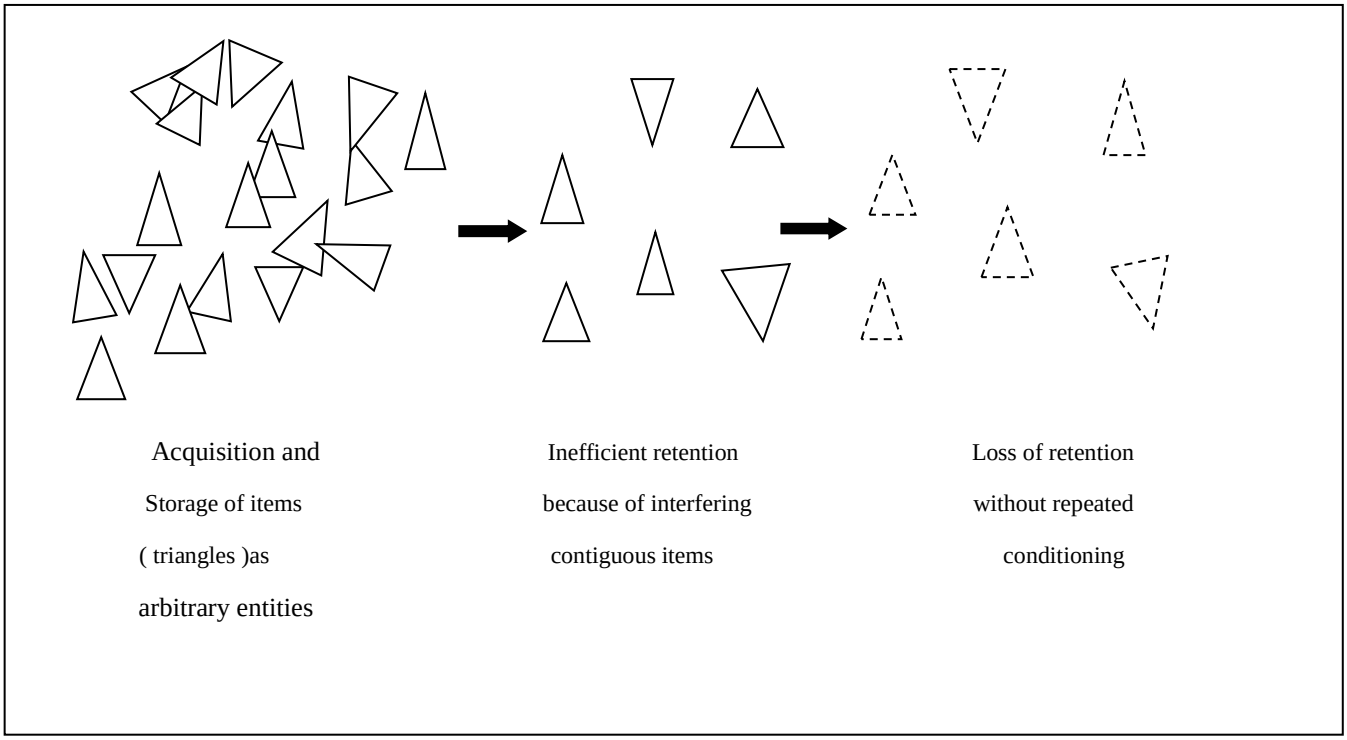
For Ausubel (1963) learning takes place in the human mind through a meaningful process of relating new events or items to already existing cognitive concepts. (Hanging new items on existing cognitive pegs. In other words, meaningful learning happens when entities of knowledge or information such as symbols, signs, concepts or propositions are related to and eventually incorporated within a given individual's cognitive structure.

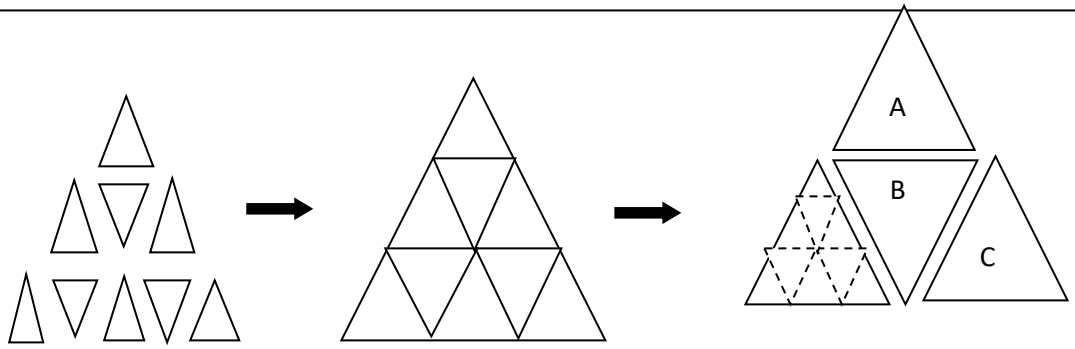
According to Ausubel, this relatability has to do with a number of mental processes or operations such as the acquisition of new knowledge, retention, the psychological organisation of knowledge as hierarchical structure, and the eventual occurrence of forgetting.

2-1-3-1 Meaningful Versus Rote Learning

Ausubel's theory is best understood when contrasting meaningful learning and rote learning. Ausubel describes rote learning as the process of acquiring materials as discrete and relatively isolated entities that are relatable to cognitive structure only in an arbitrary verbatim fashion not permitting the establishment of meaningful relationship. Put in other way, in rote learning there is no establishment of meaning because knowledge is acquired as discrete and isolated entities; it involves the mental storage of items having little or no associations with existing cognitive structure. Meaningful learning, on the other hand, consists in relating or anchoring new materials to already established entities in cognitive structure. As new materials enter the cognitive field it interacts and is appropriately subsumed (included) under a more inclusive conceptual system. The fact that materials (knowledge) are relatable to stable elements in cognitive structure accounts for its meaningfulness. To understand better the difference between rote learning and meaningful learning, we may think of the cognitive structure as a system of building blocks, then rote learning is the process of acquiring isolated blocks with no particular function in the building of a structure and no relationship to other blocks. Meaningful learning is the process whereby blocks become an integral part of already established categories or systematic structure of block as the pictures below illustrate.

Figure 2.5. *Schematic representation of meaningful learning* (source: Brown,2007 p.92)





Acquisition and Storage of items (triangles)as arbitrary entities

Subsumption process continues in retention

Systemaatic forgetting subsumed items are 'pruned' in favor of larger, more global conceptions , which is , in turn, related to other items A , B, C

In order to be meaningful any learning situations needs two main conditions:

a) **Learners should have a meaningful learning set, that is a disposition to relate the new learning task to what they already know.**
b) **The learning task itself is potentially meaningful to the learners- that is relatable to the learner's structure of knowledge.**

2-1-3-2Manufacturing meaningfulness

Establishing meaningful learning is a potential factor in human learning; we can make things meaningful when we are motivated to do so. This is possible by finding a link between what is to be learnt and what is already assimilated or subsumed in the memory. For example, to be able to memorize the digit numbers of a credit card, we may find a link between each digit and a significant day in our lives or in the history

The difference between rote learning and meaningful learning resides in the possibility of retaining the latter and make use of it for longer than it is for the former.

Ausubel's work underscored the important role of students' existing knowledge, its conceptual make-up and formulation, and emphasized the *cognitive structure* in what is known by the learner. In Ausubel's own words:

> The task of teaching a subject to a child at any particular age is one of representing the structure of that subject in terms of the child's way of viewing things. The task can be thought of as one of translation**.**
>
> (Ausubel, 1963, p. 30)

Put in another way, the teacher's role in the learning process consists in finding ways in which the piece of knowledge to be learned can be subsumed into the mental concepts of the learners. This can be possible only if the teacher will be able to identify his learners' conceptual maps or system and can find ways to relate the new pieces of knowledge to this pre-existent conceptual structure. Otherwise, meaningful learning, which is the core of any learning process, will not occur. Instead, rote learning, with low retention, will be the outcome of a learning situation that does not take into account learners' conceptual maps.

2-1-3-3Questions and tasks about Ausubel's meaningful learning

- Work in groups of three to four, list the activities that need to be rote learned and the activities that should and must be meaningful in a foreign language classroom

- Give examples from your own experience as a learner where you managed to make learning meaningful; in Ausubel's words, what tips you used to manufacture meaningfulness.

2-2 Studies on Human Intelligence

The cognitivists' 'views that human learning is specific and different from other species learning and that learning takes place inside the human mind led to research on human intelligence. The concept has not ceased to evolve throughout the history

2-2-1 Definition of intelligence

If asked what is meant by intelligence, most people would probably refer to some forms of inborn general ability which enables some of us to learn better or faster than others. According to Such view suggests that intelligence is fixed at birth and unlikely to change after the age of five. Such perspective has influenced education and schooling for a long time, notably during 1960's and 1970's. In fact, this view was behind the pre-selection of students into specific schools and educational programmes which was thought of as segregative procedures because it is based on the premise that some people are born more intelligent than others and that they are capable of learning any task (Williams& Burden, 1997).

2-2-2 Intelligence as a fixed ability and the IQ tests

This belief in the unchanging nature of intelligence has led to the development of intelligence IQ (Intelligence Quotient) tests and their use for the purpose of prediction or placement and even diagnostic tool to explain learning.

The view of inborn fixed intelligence was transferred to language learning in the form of aptitude tests. The most prominent are Carroll and Sapson's (1958) Modern Language Aptitude Tests (MLAT). According to this view, language learning ability is considered as an inborn aptitude that can be measured and predicted the success or failure of learners in languages.

Both IQ test and language aptitude tests received a lot of criticism because they place limitations on the way we perceive learners and how we treat them

2-2-3 Gardner's seven intelligences

An alternative to this traditional view came from the Harvard psychologists Howard Gardner (1983) who contends that we should consider different kinds of intelligences as unitary faculty.

He suggests at least seven types of intelligences are clearly identifiable

Linguistic Intelligence:

Involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. Writers, poets, and speakers often exhibit high linguistic intelligence.

Logical-Mathematical Intelligence:

Involves the ability to analyse problems logically, carry out mathematical operations, and investigate issues scientifically. Scientists, mathematicians, and problem solvers typically display high logical-mathematical intelligence.

Spatial Intelligence:

Pertains to the ability to perceive the visual-spatial world accurately, manipulate and create mental images, and navigate spatial environments.

Artists, architects, and navigators often have high spatial intelligence.

Musical Intelligence:

Involves skill in the creation, performance, and appreciation of music. Musicians, composers, and individuals with a strong sense of rhythm and pitch possess high musical intelligence.

Bodily-Kinesthetic Intelligence

Relates to the ability to use one's body effectively and express oneself through bodily movements. Athletes, dancers, actors, and surgeons often exhibit high bodily-kinesthetics' intelligence.

Interpersonal Intelligence:

Involves the ability to understand and interact effectively with others. Individuals with high interpersonal intelligence are good at recognizing and responding to the moods, motivations, and desires of others. Leaders, teachers, and counsellors may have high interpersonal intelligence.

Intrapersonal Intelligence:

Pertains to self-awareness and the ability to understand one's own emotions, motivations, and goals. Individuals with high intrapersonal intelligence have a deep understanding of themselves and are often reflective and introspective.

Later, Gardner (2004, 1999) proposed two additional intelligences:

Naturalistic Intelligence:

Involves sensitivity to the natural world, including the ability to recognize and categorize plants, animals, and other elements of nature. Biologists, ecologists, and naturalists may have high naturalistic intelligence.

Existential Intelligence:

Involves contemplation of the "big questions" related to existence, meaning, and the nature of the universe. Individuals with high existential intelligence may be drawn to philosophy, theology, or other disciplines that explore profound existential questions.

It's important to note that Gardner's theory doesn't claim that these intelligences are completely independent; individuals may possess a combination of these intelligences to varying degrees. Additionally, Gardner's model has sparked debate and discussion within the

field of psychology, with some researchers questioning the empirical support for the concept of multiple intelligences.

In some educational institutions around the world, Gardner's concept of multiple intelligences has been applied in various degrees. For example, Thomas Armstrog (1994, 1993) focused teachers and learners' attention on the seven ways to become smart; in addition, he drew educator's attention to the fact that linguistic and arithmetic intelligence are not the only gateways to success in real-life world.

As for language learning, Christison (2005, 1999, as cited in Brown, 2007, p.110) have demonstrated how the concept of multiple intelligences is relevant to second language teaching and can help second language teaching and learning in the classroom.

2-2-4 Questions and tasks about intelligence

Examine one of the Algerian school English textbooks, what sort of intelligences, it focuses on?

Do you think that our schools focus mainly on specific intelligences and neglect others? Which ones?

2-3 Constructivism

So far, the cognitive theorists have attempted to understand the internal processes involved in human learning without looking at learners' specificities in undertaking the learning processes. The constructivists, on the other hand, emphasize on individual learners' differences. For the constructivists, human beings are actively engaged, right from birth, in actively constructing their own meaning of the world from their personal experiences. In other words, everyone makes his or her own understanding of the world and the experiences that surrounds him.

2-3-1 Piaget's developmental Psychology

Jean Piaget was one of the most influential researchers in developmental psychology. The writings of Piaget (e.g. Piaget and Inhelder,1969; Piaget, 1972; Piaget, 1974) along with the work of John Dewey (e.g., Dewey,1997), Jerome Bruner(e.g.,1966,1974) and Neisser (1967) are at the origin of the constructivist theory of learning and instruction.

Piaget was interested in the ways in which individuals come to know things as they develop from infancy to adulthood. His theory is concerned with the process of learning rather

than on what is learned. He suggests that human beings come to know things through direct experience with these things or objects but they make sense of experiences at different stages of their lives

2-3-1-1 Stages of Cognitive development

For Piaget, individuals pass through four stages or four mental developmental stages. These are:

1) The Sensory-motor stage: (Infancy from birth to 2years). In this period (which includes six additional sub-stages), intelligence is demonstrated through motor activity without the use of symbols. Knowledge of the world is limited (but developing) because it is based on physical interactions/ experiences. Children acquire object permanence at about 7 months of age (memory). Physical development (mobility) allows the child to begin developing new intellectual abilities. Some symbolic (language) abilities are also developed at the end of this stage.

2) The pre-operational stage: (Toddler and Early Childhood 2 to 7). In this period (which has two substages), intelligence is demonstrated through the use of symbols, language use matures, and memory and imagination are developed, but thinking is done in a none-logical, none-reversable manner. Egocentric thinking predominates

3**) The Concrete operational stage:** (Elementary (8 to 11) and early adolescence).In this stage(characterized by7 types of conservation: number, length, liquid, mass, weight, area, volume), intelligence is demonstrated through logical and systematic manipulation of symbols related to concrete objects. Operational thinking develops (mental actions that are reversible). Egocentric thought diminishes.

4) **The Formal operational stage**: (Adolescence and adulthood). In this stage, intelligence is demonstrated through the logical use of symbols related to abstract concepts. Early in the period there is a return to egocentric thought. For Piaget abstract reasoning does not happen before adolescence and tend to vary across subject areas

Implications of the developmental stages on education

According to Williams and Burden (1997), the main message that Piaget ‘s developmental stages have for the language teacher is to respect child’s cognitive development, particularly when teaching young children, who have not reached the stage of abstraction and,

therefore, cannot sort out the rules of the language and apply them. Discovery learning and supporting the developing interests of the child are two primary instructional techniques.

It is recommended that parents and teachers challenge the child's abilities but NOT present material or information that is too far beyond the child's level. It is also recommended that teachers use a wide variety of concrete experiences to help the child learn (e.g., use of manipulative, working in groups to get experience seeing from another's perspective, field trips, etc).

2-3-1-2The Process of Assimilation and Accommodation

Piaget saw cognitive development as a process of maturation within which genetics and experience interact. The developing mind is viewed as constantly seeking equilibrium between what is known and what is currently being experienced. This is accomplished by the complementary processes of assimilation and accommodation.

Assimilation is the process whereby incoming information is changed or modified so that it fits in what we already know. Accommodation is the process by which already known information is changed to take into account new information. Working in conjunction, these two processes contribute to what Piaget terms the central process of cognitive adaptation which is an essential aspect of learning.

It is particularly relevant for learning grammar of the target language in the initial stages. For example, as a teacher, I have observed that at an early stage of English learning, some learners tend to use the present to speak about intentions: « I open the door », « I answer the telephone ». After being introduced to the future forms and the use of will in expressing intentions, students will use both assimilation and accommodation. By the process of assimilation, they will change the idea that future forms are only used to talk about the future. By the process of accommodation, they will modify or change the information that the present simple is used to express intentions.

2-3-1-3Implications of Piaget’s theory for language teaching

The major influence of Piaget’s thought and the constructivists in general is related to the learner’s role in the learning process.

The learner is no longer seen as a passive receiver of the language input presented to them. Instead, learners are perceived as actively engaged in making sense of the language input presented to them.

The role of the teacher consists in guiding the students in making their own sense of the language rather than imparting them with language rules.

2-3-2 Bruner's purposeful education

In addition to Piaget who is considered the founder of this school of thought, in the 1960s, Jerome Bruner (1960,1966) put forward a theory of cognitive growth which looked to the influence of environmental and experiential factors in a child's education. It suggests that each child's intellectual ability develops in stages through changes in how the mind is used. Like Piaget, Bruner presented his own model of cognitive development. He introduced three modes of representation; each of which reveals the way in which information or knowledge are stored and encoded in memory. The three modes are integrated, that is each one leads to the following one.

-**Enactive (0- 1 years)**: It appears first. It involves encoding action-based information and storing it in our memory. A baby might remember the action of shaking a rattle.

- **Iconic (1-6 years)**: This is where information is stored visually in the form of images (a mental picture in the mind's eyes). This explains why when we are learning, we have to use diagrams.

- **Symbolic (7 years onward):** It develops last. It is when information is stored in the form of a code or symbol, such as language. In this stage , knowledge is stored principally as words, mathematical symbols or other symbol system.

Bruner's constructivist's theory suggests that learning can be effective if we follow a progression from enactive to iconic to symbolic representation when faced with new learning materials. This holds true even for adult learners.

His work also suggests that a learner even of a very young age can learn any material as long as the instruction is organized appropriately. Bruner's position was that young children need to learn the underlying principles of different concepts – the structure of ideas – rather than to simply memorize their related facts and data.

Moreover, Bruner (1974) championed learning through inquiry, and believed that the teaching and learning of any subject at an early age should have as its goal the child's intuitive grasping of its basic ideas. As children grow then, Bruner believed, curriculum should revisit earlier learned ideas, expanding upon them until a child reaches a more complete understanding of individual ideas and how they relate to one another. Bruner referred to this as the "**spiral**

curriculum", wherein ideas are presented in repeated learning opportunities over time, and are organized from the simple to the complex, from the general to the specific, and are examined in relation to one another.

Another important principle of his theory in education is that the aim of education should be to create **autonomous learners i.e. learning how to learn**. For Bruner the purpose of education is not to impart knowledge , but to facilitate a child's thinking and problem solving skills which can be transferred to a range of situations.

Bruner (1960) opposed Piaget's notion of readiness. He argued that schools waste time trying to match the complexity of subject materials to children's cognitive stages of development. He believes that a child of any age is capable of understanding complex information. He argues:

> We begin with the hypothesis that any subject can be taught effectively in some intellectually honest form to any child at any stage of development. This is only possible through the spiral curriculum which involves information being structured so that complex ideas can be taught at a simplified level first and then revisited at more complex levels later on. (Bruner, 1960, p.15)

The idea of experiential learning and the spiral curriculum greatly influenced language teaching and appears in Communicative Language teaching in the notion of tasks.

2-3-3 Dewey's problem solving education

Although not all of Dewey's ideas align with modern constructivism, he is considered a key figure in the development of the constructivists' philosophy. For one thing, Dewey saw learning as an adaptive process, for interaction with the surrounding environment is likely to create problems that learners should think and solve in order to satisfy their needs. For Dewey, the school's role is not to prepare learners for situations that they can face later, but rather to equip them with problem solving skills, which is the root of constructivism. Dewey's constructivist perspective on education has had a significant impact on language pedagogy. Dewey argued that the ultimate goal of education should not be the mere acquisition of information, but rather the active engagement of students in their own learning process (Massey, 1999). This student-centered approach, which emphasizes "activity, group participation, and adaptation to the needs of the student," (Massey, 1999) has laid the foundation for many modern language teaching methodologies.

Constructivism, as espoused by Dewey and others, posits that learners actively construct their own knowledge through their experiences and interactions with the world around them. (Kaufman, 2004) This principle has important implications for language teaching, as it suggests that language learning is not simply a matter of passively absorbing grammar rules and vocabulary, but rather a dynamic process of meaning-making and communication.

solving and inquiry-based learning. (Thibeault, 2020) In the context of language education, this approach encourages students to engage in authentic, meaningful (Garrison, 1995) tasks and to use the target language to actively explore and make sense of the world ar

One of the key tenets of Dewey's constructivism is the emphasis on problem-solving and inquiry-based learning. (Thibeault, 2020) In the context of language education, this approach encourages students to engage in authentic, meaningful tasks and to use the target language to actively explore and make sense of the world around them. (Suhendi et al., 2021)

2-3-4 Tasks and questions about constructivism

1) Complete the following table with what you have known about behaviourism (traditional teaching) and constructivism.

Behaviourist traditional classroom	Examples	Constructivist classroom	Examples
Knowledge is outside the human mind	Books, videos, encyclopedeas	Knowledge exists inside the learner's mind	Students' use their own interpretation to understand materials
The teacher is central and knowledgeable	Lectures, drills, repetition, criticising or frowning	……..	…….
……	……	Continuous or progressive assessment	Assessing student's progress throughout a term
		Problem solving and crtical thinking	

Rote learning	…….		
Mistakes are errors and not allowed	…….	Mistakes are part of the learning process	…….

2) Below is a lesson plan, read it and then say how does this lesson plan help students construct their writing of a descriptive paragraph? Where are the elements of constructive learning as advocated by Dewy?

Lesson Plan: Writing a Descriptive Paragraph

Objective: Students will construct a vivid descriptive paragraph by exploring sensory details and collaborating with peers.

Phase 1. Introduction (Activate Prior Knowledge)

- Activity: Show a picture of a vibrant scene (e.g., a busy market or a serene beach).
- Discussion Prompt:
    - "What do you notice in this picture?"
    - "What would you see, hear, smell, feel, or taste if you were there?"
- Goal: Elicit sensory details and activate prior knowledge about descriptive writing.
    - Write student responses on the board (e.g., "bright colors," "salty sea air").

Phase 2. Exploration (Guided Inquiry)

- Activity: Sensory Walk (if feasible, take the students outdoors; if not, use a virtual sensory video).
    - Students use a "Sensory Chart" to note down what they see, hear, smell, feel, or taste during the walk.

Phase3. Collaboration (Social Interaction)

- Activity: Pair-Share
    - In pairs, students discuss their sensory notes and share what they found most vivid.
    - Each pair chooses 2-3 details they think would stand out in a descriptive paragraph.

Phase4: Construction (Building Knowledge)

- Activity: Writing the Paragraph
    - Students independently write a descriptive paragraph based on their sensory notes.
    - Provide a scaffold with prompts like:
        - Topic sentence: What is the main idea of the scene?
        - Details: What did you see/hear/smell/feel/taste?
        - Concluding sentence: How did the scene make you feel overall?

Phase 5. Sharing and Feedback (Collaborative Refinement)

- Activity: Peer Review
    - Students swap paragraphs and provide feedback using a checklist:
        - Does the paragraph include all five senses?
        - Are the details vivid and engaging?
        - Is the writing organized and clear?

Phase 6. Reflection (Metacognition)

- Discussion Prompt:
    - "What made your writing stronger after the peer review?"
    - "How did using sensory details help you create a vivid description?"

3The Humanists' view

introduction

For the humanists, human beings are biological and cognitive beings, but they are also and above all emotional beings. As such, human learning cannot be understood fully without shedding light on the inner world of the learner. For most humanists (Erikson, 1963; Rogers,1969; and Maslow, 1968) the inner world of the learner which includes his perception abou**t** himself and the world in which he/she acts is decisive in his/her learning and development as a human.

3-1 Erik Erikson

In his text Childhood and Society (1963), Erikson lays the foundations of his idea. He suggests that human beings go through eight stages in their psychological development process. Each of these stages are governed by the relationship of the individual with the society. He calls these developmental stages, the fundamental epigenetic principle. Each stage possesses a

number of challenges and crisis. If these challenges are handled smoothly with the help of other significant people in his life, he can move onto the subsequent stage and will be in a strong position to handle other challenges. Conversely, if the challenge was not handled appropriately, it will continue to appear in the subsequent stages, making the challenges more and more difficult to deal with. These stages are represented in the figure below

Figure 3.1 *Erikson's eight stages of psychological development*

Note from Erik Erikson's Eight Stages of Psychological Development by McLeod (2024)

1)Trust vs. Mistrust

From birth to 12 months of age, infants must learn that adults can be trusted. This occurs when adults meet a child's basic needs for survival. Infants are dependent upon their caregivers, so caregivers who are responsive and sensitive to their infant's needs help their baby to develop a sense of trust; their baby will see the world as a safe, predictable place. Unresponsive caregivers who do not meet their baby's needs can engender feelings of **anxiety**, fear, and mistrust; their baby may see the world as unpredictable. If infants are treated cruelly or their

needs are not met appropriately, they will likely grow up with a sense of mistrust for people in the world (McLeod, 2024).

2)Autonomy vs. Shame/Doubt

As toddlers (ages 1–3 years) begin to explore their world, they learn that they can control their actions and act on their environment to get results. They begin to show clear preferences for certain elements of the environment, such as food, toys, and clothing. A toddler's main task is to resolve the issue of *autonomy vs. shame and doubt* by working to establish independence. This is the ―me do it‖ stage. For example, we might observe a budding sense of autonomy in a 2-year-old child who wants to choose her clothes and dress herself. Although her outfits might not be appropriate for the situation, her input in such basic decisions has an effect on her sense of independence. If denied the opportunity to act on her environment, she may begin to doubt her abilities, which could lead to low **self-esteem** and feelings of shame.

3)Initiative vs. Guilt

Once children reach the preschool stage (ages 3–6 years), they are capable of initiating activities and asserting control over their world through social interactions and play. According to Erikson, preschool children must resolve the task of *initiative vs. guilt.*By learning to plan and achieve goals while interacting with others, preschool children can master this task. Initiative, a sense of ambition and responsibility, occurs when parents allow a child to explore within limits and then support the child's choice. These children will develop self-confidence and feel a sense of purpose. Those who are unsuccessful at this stage—with their initiative misfiring or stifled by over-controlling parents—may develop feelings of guilt.

4)Industry vs. Inferiority

During the elementary school stage (ages 6–12), children face the task of *industry vs. inferiority.* Children begin to compare themselves with their peers to see how they

measure up. They either develop a sense of pride and accomplishment in their schoolwork, sports, social activities, and family life, or they feel inferior and inadequate because they feel that they don't measure up. If children do not learn to get along with others or have negative experiences at home or with peers, an inferiority complex might develop into **adolescence** and adulthood.

5) Identity vs. Role Confusion

In adolescence (ages 12–18), children face the task of *identity vs. role confusion.* According to Erikson, an adolescent's main task is developing a sense of self. Adolescents struggle with questions such as ―Who am I?‖ and ―What do I want to do with my life?‖ Along the way, most adolescents try on many different selves to see which ones fit; they explore various roles and ideas, **set** goals, and attempt to discover their ―adult‖ selves. Adolescents who are successful at this stage have a strong sense of identity and are able to remain true to their beliefs and values in the face of **problems** and other people's perspectives. When adolescents are apathetic, do not make a conscious search for identity, or are pressured to conform to their parents' ideas for the future, they may develop a weak sense of self and experience role confusion. They will be unsure of their identity and confused about the future. Teenagers who struggle to adopt a positive role will likely struggle to ―find‖ themselves as adults.

6)Intimacy vs. Isolation

People in early adulthood (20s through early 40s) are concerned with *intimacy vs. isolation.* After we have developed a sense of self in adolescence, we are ready to share our life with others. However, if other stages have not been successfully resolved, young adults may have trouble developing and maintaining successful relationships with others. Erikson said that we must have a strong sense of self before we can develop successful intimate relationships. Adults who do not develop a positive **self-concept** in adolescence may experience feelings of loneliness and emotional isolation.

7)Generativity vs. Stagnation

When people reach their 40s, they enter the time known as middle adulthood, which extends to the mid-60s. The social task of middle adulthood is *generativity vs. stagnation.* Generativity involves finding your life's work and contributing to the development of others through activities such as volunteering, mentoring, and raising children. During this stage, middle-aged adults begin contributing to the next generation, often through childbirth and caring for others; they also engage in meaningful and productive work which contributes positively to society. Those who do not master this task may experience stagnation and feel as though they are not leaving a mark on the world in a meaningful way; they may have little connection with others and little interest in productivity and self-improvement.

8)Integrity vs. Despair

From the mid-60s to the end of life, we are in the period of development known as late adulthood. Erikson's task at this stage is called *integrity vs. despair.* He said that people in late adulthood reflect on their lives and feel either a sense of satisfaction or a sense of failure. People who feel proud of their accomplishments feel a sense of integrity, and they can look back on their lives with few regrets. However, people who are not successful at this stage may feel as if their life has been wasted. They focus on what ―would have, ‖ ―should have,‖ and ―could have‖ been. They face the end of their lives with feelings of bitterness, depression, and despair.

3-2 Rogers'Humanistic Psychology

Rogers (1969) studied the whole person as a physical and cognitive but primarily as an emotional being. His principal focus is on the individual's self–concept and sense of reality. For Rogers, these the two internal forces that cause a person to act. For Carl Rogers, human beings have a natural potential for learning. He argues that inherent in any human behaviour is a desire to adapt and grow in the direction that could enhance their existence (Brown, 2007).

3-2-1Conditions of learning

Significant learning will take place only when the subject matter is perceived to be relevant to the learner and when it involves active participation by the learner. Lasting learning should involve both feelings and cognition and a sense of productivity. For Rogers learning is a process of change which involves the whole person. In Roger's words:

> The only man who is educated is the man who has learned how to adapt and change; the man who has realised that no knowledge is secure; that only the process of seeking knowledge gives a basis for security. (Rogers, 1969, p.104)

This kind of learning happens only in a **non-threatening** environment. In such an environment, a person will form a picture of reality that is congruent with reality and will learn and grow as a **"fully functioning person"**. **A fully functioning person** is a person who lives in peace with all his feelings and reactions and is able to achieve his full potential. A non-threatening environment is established in an atmosphere with unconditioned 'positive regard' towards the learner. For Rogers, the teacher should consider his learners as clients with specific needs that he has to meet. The teacher should provide warmth and empathy in order to establish trust in the teacher-learner relationship .

3-3-Implications of the humanists' view

Brown (2007) and Williams &Burden (1997) summarize the implications of the humanists' view in the following points

-The role of education is to facilitate change and learning

- Learning how to learn is more important than to be taught from the superior vantage point of the teacher

-Teachers should be facilitators of learning through the establishment of interpersonal relationship with learners.

- To be facilitators they must be real and genuine by discarding the mask of superiority

- Teachers need to have genuine trust, acceptance, and they should view the learner as a worthy, valuable individual.

With these characteristics, teachers are effective, and they have set the optimal stage and context for learning. Rogers contends that if the context of learning is properly created, human beings will learn everything they need.

3-4-Criticissm and shortcomings of the Humanits' view

Although the humanists' philosophy in education has been appealing to parents as well as to educators, it received some criticism. One of the shortcomings of this philosophy pertains to the constraints of practicality of such principles in an educational setting. For instance, time-limit in an educational institution will lead to losing valuable time in the process of allowing learners to know themselves.

Another criticism concerns the secure environment or the anxiety-free atmosphere which according to critics will foster a sense of recklessness. Indeed, there must be some tension for learning because humans tend to laziness and carelessness; as a result, a nonthreatening environment may be so non-threatening that no learning will occur.

3-5 Questions and tasks about the humanists

1)The below description is a method of learning that advocates humanism. In what ways does it use the humanists' principles in learning? Where are the humanists' elements in this method?

Suggestopedia

This method is based on the idea that the mind has great potential and can retain information by the power of suggestion. This teaching method uses relaxation as a means of retaining new knowledge.

In their initial lessons learners receive large quantities of information in the new language. The text is translated and then read aloud with classical music in the background.

The scope is to supply an atmosphere of total relaxation where **understanding is purely accidental** and subliminal. Using large quantities of linguistic material introduces the idea that language understanding is easy and natural.

In the following lesson, learners use the material in a variety of communication activities. The original learning techniques and theory developed by Georgi Lozanov have since developed into the Accelerated Learning movement.

Summary
When – 1970s to 1980s
Focus – Meaningful texts and vocabulary
Characteristics – Relaxed atmosphere, with music; encourage subliminal learning of English
Supporters – Georgi Lozanov

From Richards & Rodgers (2000)

2) In pairs or groups, think about the teachers you have had in different educational settings, which teacher had a humanist's view of education and learning? How did he or she use to teach and treat you?

3) How far could a humanist's view of language learning be applied in large classrooms?

4-The social-interactionists' view

Introduction

According to the proponents of the social interaction theory, human beings are born into a social world and learning occurs through interaction with other people. In, other words, human beings make their sense of the world through this interaction. The most influential scholar in this approach is the Russian Lev Vygotsky (1896- 1934). His theory is known as the sociocultural theory for cognitive development

4-1Vygotsky's Social Cultural Theory of Cognitive Development

According to this theory, our linguistic, cognitive, and cultural development are socially constructed. To the opposite of Piaget, Vygotsky (1978, 1987) suggests that human learning through interaction and the use of language lead to cognitive development and not the opposite. Vygotsky(1978) emphasises the role of the language in the society which includes signs and symbols. By means of language culture is transmitted and learning occurs

4-1-1The notions of: mediation, the ZPD, and Scaffolding in Vygotsky's theory

Mediation: it refers to the part played by other significant people in the learners' lives who enhance the learning by selecting and shaping the learning experience

The secret of effective learning lies in the nature of social interaction between two or more people with different levels of skills and knowledge. The role of the one with more knowledge is to find ways of helping the other to learn. This involves helping the learner to move into the next layer of knowledge or understanding. This person is known as the mediator (Vygotsky, 1987).

4-1-2 Zone of proximal Development

Vygotsky highlights the role of social interaction which leads to learning and development. While learning refers to knowledge and comprehension, development refers to progress from earlier to later stages of maturation. For Piaget learning does not affect the course of development since maturation precedes learning and the learner must be cognitively and developmentally ready to handle some tasks. Vygotsky, on the other hand, suggests that learning precedes development and even contributes to it; the learner 's language performance with others exceeds what he can do alone because the learners bring two levels of development: what he can do by himself without assistance and a potential level of development which he can do with others (parents, instructors, peers...etc) ZPD

It is through interaction with others that the learner progress from the actual developmental level (what he can do by himself) to the potential development level and between these two level is the ZPD Vygotsky defines the ZPD as the distance between the actual developmental level as it is determined by independent problem solving and the level of potential development as identified by problem solving under adults' guidance or with association with more capable peers (Vygotsky, 1978) .

4-1-3Vygotsky and Private Speech in Young Children

Vygotsky (1987) was the first philosopher to describe the stage of private speech and explain it as the transition between initial external speech and silent inner speech. He also stated that thought and language were initially separate functions before they merge at around the age of 7. Vygotsky believed that this process of internalising speech and language was essential to cognitive development.

Vygotsky viewed private speech as a method of self-regulating behaviour. He also viewed language as a tool for accelerating understanding. For these reasons, he suggested that children who engaged in private speech regularly would be more socially competent than those who did not. Private speech could be useful in helping a child exercise their imagination, practise problem-solving skills and organise their thoughts.

While Vygotsky (1987) consider that private speech appeared at times when a child was having difficulty with a task and was then used to guide their thoughts and actions by first organising and regulating them, Jean Piaget theorised that private speech diminished with age as the child became more socialised and adjusted more to external speech, which is in contrast with Vygotsky's theory that private speech disappeared as it became silent and internalised.

4-1-4 Application of Vygotsky's Theory in the Classroom

Vygotsky's sociocultural theory about child development says that cognitive development occurs as a result of social interactions. In this way, learning is innately collaborative. He believed social negotiation was essential for building knowledge and understanding concepts.

Vygotsky proposed that it was not possible to separate learning in the formative years from its social context. Initial learning occurred through social interaction and then the individual processed it internally.

Contemporary modes of applying this theory to the classroom mark a movement away from traditional memory-oriented models of teaching to 'Reciprocal teaching' which refers to a method in which teachers and students work together to clarify and understand a concept before students are asked to repeat it or apply it in another context (Dixon-Krauss**,**1996).

For example, if a teacher is reading a paragraph of text on a certain topic, they will go through a process together with the students of:

- Summarising
- Questioning
- Clarifying; and
- Predicting

This collaborative process allows the students to learn the concept in a social context before internalising it to apply on their own (Dixon-Krauss,1996).

4-1-5 Zone of Proximal Development Examples and Applications in the Classroom

Techniques such as 'scaffolding' and/or 'apprenticeship' are often used in the classroom to describe ways of teaching students according to their level of ability. In these techniques, the learning is structured by a teacher and then their role is gradually reduced over time. This allows the student to learn the topic within their zone of proximal development and then adjust to doing it by themselves or tackling something of a higher difficulty.

Vygotsky's theories also inform some contemporary ideas about collaborative learning, such as pairing students of lesser capability with more advanced peers to help them learn. Discussion groups, small group learning and collaborative exercises in schools and universities have also been incorporated in response to theories about social learning (Moll, 1990).

Understanding what tasks, processes and concepts might lie in a student's zone of proximal development is also essential. For example, if a student has just mastered their times tables, basic division might be in their ZPD, but they're probably not ready for exponents yet. The teacher might provide an example of a division problem and the method to solve it before asking the student to try it themselves. This linear structure of learning is applied in most schools and institutions.

4-2 Long's Interaction Hypothesis

While Vygotsky's theory was meant to account for human learning from early childhood, Long’s (1981, 1983, 1996) theory of interaction hypothesis (IH) attempts to account for second language acquisition adopting a social constructivist (interactionist) approach. For Long (1996) and other interactionists (e.g. Ellis &He, 1999; Grass &Mckey ,2015), interaction is key to language learning. The components of this interaction are: input, negotiation for meaning,

Input: the interactionists have been interested in the kind of input that learners receive. It can be naturalistic, pre-modified (simplified and / or elaborated) or interactionally modified.

It was found that the interactionally modified input promote optimal language acquisition (Ellis&He, 1999 ; Mackey, 1999**)**

Negotiation for meaning is the core of IH. When communication breaks down, the learner and his or her interlocutor signal to each other in various ways; for example clarification requests, comprehension checks, confirmation requests**.**

Negotiation for form: This kind of negotiation occurs as a result of looking for linguistic accuracy rather than communication breakdown. It is more likely to occur in language classrooms and tend to have didactic purpose; it contains corrective feedbacks.

The output is the language that the learner produces during the meaning-focused interaction. The interactionist approach heavily relies on Swain's (1985, 1995, 2005) Comprehensible Output Hypothesis, which suggests that output is not just a reflection of second language (L2) development but also plays an active role in driving it. Swain emphasizes that learners must be encouraged to produce language that is more syntactically complex and accurate. Since learners often focus on the meaning of language rather than its linguistic structure, they tend to bypass processing all its features if they can understand the message. However, producing language forces them to pay attention to specific linguistic forms and their corresponding meanings, a process Swain refers to as the "noticing function." Additionally, Swain argues that output provides learners with opportunities to test their linguistic assumptions and potentially receive feedback on these hypotheses, known as the "hypothesis-testing function"(Loewen & Sato, 2018).

Attention is cognitive and pertains to learners' internal capacities Long's (1996) interaction hypothesis emphasizes that interaction effectively connects input, learner capacities (such as selective attention), and output. While researchers may differ on the precise definitions of attention, awareness, and noticing, there is consensus that these cognitive processes are integral to L2 learning through interaction (Loewen& Sato, 2018).

Much of task-based language learning and teaching has received its theoretical foundations from the interactionists approach. Indeed task-based language learning and teaching is a learner-centred, interaction-driven lesson in which there is an input (the task questions), interaction (while performing the task), and an output (the outcome of the task)

4-3 Questions and tasks about the interactionists

1) Compare Vygotsky's ZPD and Long's IH, in what ways they are similar and different?

2)Why do you think learning through interaction is more effective than learning alone?

3)Discuss how *private speech* could appear in a foreign language classroom.

4) In groups design tasks for language learning that involve the different components of the IH

5) In your opinion, what challenges might teachers face when applying scaffolding in large classes?

Concluding summary of the first semester lectures

Understanding human learning has been the research quest of many philosophers, psychologists, and educationists throughout the history. The complexity and the impressive process of human learning have been looked at from different perspectives since humans are considered the only species able to perform multiple tasks and to grow mentally. As such human learning cannot be a straight forward process, rather a multifaceted, ongoing journey to which different factors contribute.

This is what the previous lectures attempted to demonstrate by exploring the different perspectives of the most wellknown schools of psychology. It started with the behaviourists who perceived learning as the process of acquiring set of behaviour and see the learner as an organism capable of producing a repertoire of behaviour. Then, the cognitivists who, in contrast to the behaviourists, view that humans are mental beings able to learn thanks to some mental processes. The next school was the humanists who contend that humans are first and foremost emotional beings. Therefore, if the affective inner world of the learner is well balanced, cognition will take care of itself and learning occurs. Finally, the social -interactionists emphasize the role of social interaction in learning. According to their view, learning occurs through and with social interaction.

Though these perceptions and conceptions of human learning may appear different, they, in fact, complete one another. Each theory is a piece in the big puzzle of human learning. Indeed, human beings use each of these principles in different proportions, depending on the

requirements of the learning situations. Table 1-2 below provides a summary of the principles of the different learning theories.

Table 1.1 *Summary of the main Learning Theories*

	Behaviourists	**Cognitivists**	**Constructivists**	**Interactionists**
Focus	Observable behaviors	Internal mental processes	Active knowledge construction	Social and cultural mediation
Role of Learner	Passive responder	Active processor	Active creator	Social participant
Role of Educator	Controller of stimuli	Guide and organizer	Facilitator	Mediator and collaborator
Key Methods	Reinforcement, drills	Scaffolding, chunking	Hands-on activities, projects	Peer collaboration, ZPD tasks

First Semester exam questions (sample 1)

I)Schools of thought in psychology perceive human learning differently. For each of the below statements, give the name of the school of thought and the name of the psychologist who presented the principle (for example: Skinner, behaviourism, Pavlov, Piaget...etc)

1) Children cannot just be given knowledge, they need to construct it from past knowledge and prior experience

.....
.....

2) learners are born as empty slates ; therefore, learning consists of filling up these learners with appropriate skills and knowledge by a skilled trainer (a teacher or an instructor)

.....
.....

3) Human beings have an inherent potential for learning and growing provided that they are in an unthreatening environment and their self-concept and perception of reality are congruent with the reality.

.....
.4) Cognitive development which consists of moving from one level of mental abilities to a superior one takes place as a result of interaction and learning.

5) learning does not happen before maturation or cognitive development. Teachers should set learning tasks appropriate to the stage of cognitive development

.....

6) Learners even of a very young age can learn any material as long as the instruction is organized appropriately. This is only possible through the spiral curriculum.....

7) Competition in the classroom can lead to a feeling of inferiority rather than industry . This feeling is likely to follow the learner in later stages……

8) Learning takes place in the human mind by relating incoming information and knowledge to already existing mental pegs or mental structures

.....

.....

II) In a well structured essay answer One of the following questions

A) According to your experience as a student in the Algerian educational system which learning theory or theories were predominantly used by your different teachers? Which ones were the most and the least effective?

B) According to Bruner the purpose of education is not to impart knowledge but to facilitate a learner's thinking and problem solving skills which can be then transferred to a range of situations. Do you agree? Does this apply to the Algerian educational system? Why not?

.....

.....

.....

First Semester exam questions (Sample 2)

Question 1: For each of the following statements choose the corresponding school of thought and the psychologist?

1) Learning occurs through the association of a stimulus and response.

A. Cognitivism, Jean Piaget

B. Behaviorism, B.F. Skinner

C. Constructivism, Lev Vygotsky

D. Humanism, Carl Rogers

2) Learning is a social process, influenced by cultural and social interactions.

A. Behaviorism, Ivan Pavlov

B. Cognitivism, Albert Bandura

C. Constructivism, Lev Vygotsky

D. Humanism, Abraham Maslow

3) Learning involves active construction of knowledge through experience and reflection.

A. Behaviorism, B.F. Skinner

B. Cognitivism, Jean Piaget

C. Constructivism, Jean Piaget

D. Humanism, Carl Rogers

4) Learning is facilitated by a supportive environment that meets the learner's emotional and psychological needs.**:**

A. Behaviorism, Ivan Pavlov

B. Cognitivism, Albert Bandura

C. Constructivism, Lev Vygotsky

D. Humanism, Carl Rogers

5) Learning occurs through observation and imitation of others.

A. Behaviorism, B.F. Skinner

B. Cognitivism, Albert Bandura

C. Constructivism, Lev Vygotsky

D. Humanism, Abraham Maslow

6) Learning is a process of acquiring and organizing information.

A. Behaviorism, Ivan Pavlov

B. Cognitivism, Jean Piaget

C. Constructivism, Lev Vygotsky

D. Humanism, Carl Rogers

7)Learning is motivated by intrinsic factors such as curiosity and self-actualization.

A. Behaviorism, B.F. Skinner

B. Cognitivism, David Ausubel

C. Constructivism, Lev Vygotsky

D. Humanism, Abraham Maslow

Question 2: In an essay answer one of the following questions

1) How far do you think that the principles of constructivism in teaching can be used in large classrooms?

2) Do you think that the Algerian school with its teaching programmes take into account the seven types of intelligences? Justify your answer with examples from your personal experience in learning or teaching

Second semester lectures

Learners' Differences

Introduction to learners' differences

Human beings share certain physiological, psychological, and social traits that shape their learning process in similar ways. As it has been demonstrated in the first semester lectures, human beings as biological beings are able to learn by imitating behaviour and by the power of reinforcer; they also make use of their cognitive or mental faculty to learn; more importantly, as emotional and social beings, they learn by balancing their emotion with their cognition and by interacting effectively with their social surrounding. Nevertheless, it has been noticed that human learning is not a straightforward process and that individual learners even with the same aptitude and social conditions can have different learning patterns. This observation has sparked research into what is known as differential psychology.

Differential psychology or, as it has been recently more frequently referred to, individual difference (ID) research— has been concerned with understanding those characteristics that make individuals different from each other and exploring how and why such differences occur (Dörnyei& Ryan, 2015).It was suggested that these variations are behind learners' different progress and achievements within the same learning programme; therefore, highlighting those differences can shed more light on those characteristics supportive of learning. Theses variations are divided into: cognitive variations and affective variations. Cognitive differences are related to the different mental processes used by different learners whereas affective differences are those differences related to affect and personality such as self-esteem, motivation, anxiety…etc. The first part of these lectures is related to the cognitive differences and the second part is about affective difference.

1 Learners' Cognitive Differences

Cognitive differences are those personal traits related to how the mental processes are used in a given learning situation. While some mental processes are universally used by all humans, there are some variation and tendencies in the use of certain mental techniques and processes. To understand the difference between what is common to all human beings and what constitutes a cognitive difference, three concepts need to be distinguished.

Process All human beings engage in certain universal processes. Just as we all need water, air and food for survival, so do we all engage in certain levels or types of learning. Human beings of normal intelligence universally engage in association, transfer, generalization and attrition. We all make stimulus-response connection and are driven by reinforcement, we

all possess, in varying proportions, abilities in the seven intelligences. In brief all the mental operations of normal human beings are part of a common process of learning (Brown, 2007).

Style is the overall preferences or tendencies that characterize an individual in processing information. These characteristics are enduring and consistent throughout the learning situations, contexts, and tasks. They are intellectual features that pertain to you as an individual and that differenciate you from others as regard processing, treating, and comprehending data related to learning situations. For instance, you may tend to use your auditory sense to process information, or you may incline towards a reflective way intreating information. These may be your thinking pattern that distinguish you as a learner from another (Brown,2007).

Strategies, on the other hand, are contextualized. They are learning tools, methods or short-term plans (strategy a military and means a specific plan to tackle a particular situation) applied to particular learning situation to handle a problem posed by language learning. According to Oxford& Ehrman (1998, p.8) second language learning strategies are " specific actions, behaviours, steps, or techniques ……. used by students to enhance their own learning". Every learner has his own repertoire of learning strategies some may be effective and boost the learning process some may be inefficient to one particular learning situation or context and may slow down the learning process.

Having defined in general the three main concepts, the lectures that follow examine with more details the concepts of learning styles and strategies since they are the main cognitive differences across individuals.

1-1 Learning Styles

The way we learn things in general and the way we deal with a problem is related to an area between personality and cognition; this link is referred to as cognitive style When cognitive styles are specifically related to an educational context, they are referred to as learning styles.

Learning styles might be thought of as **"**cognitive, affective, and physiological traits that are relatively stable indicators of how learners perceive, interact with, and respond to the learning environment**"** (Keefe, 1979, p. 4). Or more simply, Skehan (1991, p. 288) defined learning style as **"**a general predisposition, voluntary or not, toward processing information in a particular way."

Learning styles are influenced by the personality type and can equally be influenced by the personality type of the individual; in this sense, Brown (2007) claims that learning styles are in an area between cognition and emotion. For example, a reflective style invariably grows out of a reflective personality or a reflective mood. An impulsive style, on the other hand, usually arises out of an impulsive emotional state. People's styles are determined by the way they internalize their total environment, and since that internalization process is not strictly cognitive, we find that physical, affective, and cognitive domains merge in learning styles.

Research in learning styles has started as early as 1968 and 1978. If we were to enumerate all the styles listed by researchers from that time, we we'll end up with long lists. Therefore, we will be content with five styles for their relevance for language learning and teaching.

1-1-1Field Independence/ Field dependent

Field independence is related to the ability to perceive a particular, relevant item or factor in a "field" of distracting items. In general psychological terms, the field may be perceptual, or it may be more abstract and refer to a set of thoughts, ideas, or feelings from which your task is to perceive specific relevant subsets (Brown, 2007).

Field dependence is, conversely, the tendency to be "dependent" on the total field so that the parts embedded within the field are not easily perceived, although that total field is perceived more clearly as a unified whole. Field dependence is synonymous with field sensitivity, a term that may carry a more positive connotation. A field independent (FI) style enables you to distinguish parts from a whole, to concentrate on something (like reading a book in a noisy train station), or to analyse separate variables without the contamination of neighbouring variables

On the other hand, too much Fl may result in cognitive "tunnel vision": you see only the parts and not their relationship to the whole. "You can't see the forest for the trees," as the saying goes. Seen in this light, development of a field dependent (FD) style has positive effects: you perceive the whole picture, the larger view, the general configuration of a problem or idea or event.

It is clear, then, that both FI and FD are necessary for most of the cognitive and affective problems we face.

It has been found in Western culture that males tend to be more FI, and that Fl is related to one of the three main factors traditionally used to define intelligence (the analytical factor), but not to the other two factors (verbal comprehension and attention concentration).

The extent of the development of a FID style as children mature is a factor of the type of society and home in which the child is raised. Authoritarian or agrarian societies, which are usually highly socialized and utilize strict education practices, tend to produce more FD Styles and Strategies. A democratic, industrialized, competitive society with freer raising norms tends to produce more Fl persons (Brown, 2007).

Affectively, persons who are more predominantly Fl tend to be generally more independent, competitive, and self-confident. FD persons tend to be more socialized; they derive their self-identity from persons around them, and they are usually more empathic and perceptive of the feelings and thoughts of others.

How does all this relate to second language learning? Two conflicting hypotheses have emerged. First, we could conclude that FI is closely related to classroom learning that involves analysis, attention to details, and mastering of exercises, drills, and other focused activities. FI performed better in deductive lessons, while those with FD styles were more successful with inductive lesson designs.

The second of the conflicting hypotheses proposes that a FD style will, by virtue of its association with empathy, social outreach, and perception of other people, yield successful learning of the communicative aspects of a second language. While no one denies the plausibility of this second hypothesis, little empirical evidence has been gathered to support it.

Teaching Implications: If the FID continuum is to be useful, perhaps classroom language teachers are better served by following their intuition concerning students' FID and acting to raise students' awareness of their styles and their strengths and weaknesses (Brown, 2007).

1-1-2 Left- and Right-Brain Dominance

As the child's brain matures, various functions become lateralized to the left or right hemisphere. The left hemisphere is associated with logical, analytical thought, with mathematical and linear processing of information. The right hemisphere perceives and remembers visual, tactile, and auditory images; it is more efficient in processing holistic, integrative, and emotional information. Torrance (1980) lists several characteristics of left- and right-brain dominance

Table 2.1 *Left and Right Brain dominance learning preferences*

Left-brain dominance	**Right-brain dominance**
Intellectual	Intuitive
Remembers names	Remembers faces
Responds to verbal instructions and explabations	Responds to demonstrated, illustrated Instruction and explanations
Experiments systematically and with control	Experiments randomly and wilh less control
Makes objective judgments	Makes subjective judgments
Planned and structured	Fluid and spontaneous
Prefers established, certain information	Prefer elusive, uncertain information
Analytic reader	Synthesizing reader.
Reliance on language in thinking and remembering.	Reliance on images in thinking and remembering.
Prefers talking and writing	Prefers drawing and manipulating objects
Prefers multiple-choice tests.	Prefers open-ended question tests
Controls feelings More	Free with feelings
Not good at interpreting body language	Good at interpreting body language
Rarely uses metaphors	Frequently uses metaphors
Favors logical problem solving	Favor intuitive problem solving

Note. Adapted from Brown (2007)

While we can cite many differences between left and right brain characteristics, we must remember that the two hemispheres work in collaboration. The construct left brain and right brain helps us to identify another learning style continuum with implications for second or foreign language learning and teaching.

For example, Danesi (1988) attributed the failure of certain teaching methods to strong reliance on left brain processes in the classroom and stresses the importance of activities and teaching techniques that engage both cerebral hemispheres, especially when moving from "context to text", i.e. from the right hemisphere to the left. It has also been found by Krashen

et al. (1974) that left-brain-dominant second language learners preferred a deductive style of teaching, while right-brain-dominant learners appeared to be more successful in an inductive classroom environment. Other researchers Stevick (1982) concluded that left-brain-dominant second language learners are better at producing separate words, gathering the specifics of language, carrying out sequences of operations, and dealing with abstraction, classification, labelling, and reorganization.

Right-brain-dominant learners, on the other hand, appear to deal better with whole images (not with reshuffling parts), with generalizations, with metaphors, and with emotional reactions and artistic expressions. Research suggests that the right hemisphere plays a great role in second language learning in early stages of language learning. This may suggest a greater need to perceive whole meanings in those early stages, and to analyses and monitor oneself more in the later stages.

N.B: **Deductive** refers to a way of teaching moving from the general to the specific

Inductive: the lesson moves from the specific to the general

1-1-3 Ambiguity tolerance

It is related to the degree to which a learner tolerates ambiguity in learning. The degree to which you are cognitively prepared to tolerate ideas and proportions that run counter your belief system. Some people are open minded accepting events and facts that contradict their own vision of life. Others are narrow-minded, dogmatic and tend to reject contradictory or slightly incongruent items with their existing system.

In second language learning, those who tolerate ambiguity tend to be more successful at early stages of acquisition than those who reject ambiguity. This is because acquiring a new language implies acquiring a whole system (logical, cultural…etc) that may be in total contradiction with ones established linguistic system. So being ambiguity tolerant can lead to success in acquiring the language. Ambiguity tolerant are notably successful readers and listeners for gist as long texts, novels or long speeches inevitably contains ambiguous words and content . However, at optimal stages too much ambiguity tolerance can have a counter effect on language acquisition and the learner may never reach a stable linguistic system (Brown, 2007).

1-1-4 Reflective and impulsive

Impulsive style of learning implies an approach in which a person makes a number of different gambles before a solution is reached. On the other hand, systematic reflective learners tend to weigh all considerations in a problem and after extensive reflection come up with a probable solution.

Studies have shown that reflective students are slower but more accurate than impulsive students in reading whereas impulsive students tend to be better at speaking fluency activities.

The continuum reflective/ impulsive has some important considerations for language learners and teachers. Teachers tend to judge mistakes too harshly, especially in the case of a learner with an impulsive style who may be more willing than to gamble at answers. In some classrooms, learners with impulsive style may be judged as annoying to the extent of irritating teachers and classmates whereas it is their style or way of learning to try one answer after another spelling out their thinking and reflection. On the other hand, a reflective learner may require patience from the teacher for he tends to be silently thinking solutions. It is also conceivable that those with impulsive style may go through a number of rapid transitions of semi-grammatical stages of second language acquisition whereas those with a reflective style tend to remain longer at a particular stage with larger leaps from one stage to another.

1-1-5 Visual and auditory style

Visual students like to read and obtain a great deal from visual stimulation. For them, lectures, conversations, and oral directions without any visual backup can be very confusing. In contrast, auditory students are comfortable without visual input and therefore enjoy and profit from unembellished lectures, conversations, and oral directions. They are excited by classroom interactions in role-plays and similar activities. They sometimes, however, have difficulty with written work.

1-1-6 Kinaesthetic and tactile students

like lots of movement and enjoy working with tangible objects, collages, and flashcards. Sitting at a desk for very long is not for them; they prefer to have frequent breaks and move around the room.

In a study, Reid (1987) demonstrated that ESL students varied significantly in their sensory preferences, with people from certain cultures differentially favouring the three different modalities for learning. Students from Asian cultures, for instance, were often highly visual, with Koreans being the most visual. Many studies, including Reid's, found that Hispanic learners were frequently auditory. Reid discovered that Japanese are very nonauditory.

1-1-7Learning styles and the language classroom:

Knowledge about learning styles will allow teachers not only to discriminate learners in terms of their learning preferences, learning pace and the reasons behind their encountered difficulties, but also to understand themselves as teachers with particular learning style. For example, a visual teacher will tend to use a lot of visual aids and the board which may suit visual learners at the expense of auditory learners. To remedy such a situation and make learners take advantage of their learning preferences while extending their abilities by acquiring other styles, Oxford (2003) propose to provide a wide range of learning activities that serve different learning styles and that can extend learners' abilities beyond their learning comfort zone imposed by their respective learning style. This can be done by selecting a range of learner-centred activities.

By far the most common type of assessment tool for L2 learning styles is the written survey. In surveys, students answer questions that reveal their particular style preferences. Style surveys vary in reliability and validity, but in the last few decades they have provided data from which teachers and students have begun to understand L2 styles. See Reid (1995) for examples of such surveys.

1-1-8 Tasks and activities about learning strategies

Task1 : answer the surrey below and ask your classmates to answer it. Summarise the findings. What are the dominant learning styles in the classroom?

1. How do you typically study for exams?

- A. I create flashcards and visual aids.
- B. I listen to audio recordings of lectures or textbooks.
- C. I practice problems and engage in hands-on activities.

2. When learning new information, what do you find most helpful?

- A. Diagrams, charts, and other visual representations.
- B. Explanations and discussions.
- C. Physical demonstrations and simulations.

3. How do you best remember information?

- A. By visualizing it.
- B. By repeating it out loud or writing it down.
- C. By physically doing or experiencing it.

4. In a classroom setting, what learning activities do you enjoy the most?

- A. Watching videos or presentations.
- B. Listening to lectures and discussions.
- C. Participating in group activities and hands-on projects.

5. When solving a problem, how do you approach it?

- A. By visualizing the problem and breaking it down into smaller parts.
- B. By talking through the problem with someone else.
- C. By experimenting with different solutions and trying things out.

6. Which of the following best describes your ideal learning environment?

- A. A quiet, well-lit space with minimal distractions.
- B. A space where you can move around and talk with others.
- C. A space where you can use your hands and manipulate objects.

7. When learning a new skill, what do you find most helpful?

- A. Watching a demonstration or reading instructions.
- B. Listening to someone explain the steps.
- C. Practicing the skill yourself.

8. How do you prefer to receive feedback on your work?

- A. In written form, with specific suggestions for improvement.
- B. Verbally, in a one-on-one discussion.
- C. Through a hands-on demonstration or activity.

9. When studying a new topic, what resources do you find most helpful?

- A. Textbooks and other written materials.
- B. Audiobooks and podcasts.
- C. Hands-on activities and experiments.

10. Which of the following best describes your learning style?

- A. Primarily visual
- B. Primarily auditory
- C. Primarily kinesthetic
- D. A combination of two or more styles

Question2:

In a well-structured essay, answer the following question: What is your learning zone of comfort as a language leaner? In other words what are your predominant learning styles? Illustrate with examples from your learning experience.

Sample answer

My Language Learning Zone of Comfort:

As a language learner, I've come to realize that my learning style is a complex interplay of various factors. While I am predominantly an auditory learner with a right-brain dominant, ambiguity-tolerant, kinesthetic, and impulsive learning style, these characteristics have both aided and hindered my English language acquisition.

My auditory learning style has been a significant advantage. I thrive on listening to language, whether it's through podcasts, audiobooks, or conversations. This auditory input helps me to internalize the rhythm, intonation, and pronunciation of the language. For instance, I often listen to English songs and try to mimic the singer's pronunciation.

My right-brain dominance and ambiguity tolerance have allowed me to approach language learning with creativity and flexibility. I enjoy exploring different language learning techniques and experimenting with new approaches. I am not afraid to make mistakes and view them as opportunities for learning and growth.

However, my kinesthetic and impulsive nature can sometimes be a double-edged sword. While I enjoy hands-on activities like role-playing and language games, I can also become impatient and restless, particularly when faced with tedious grammar exercises or vocabulary drills. I often find myself wanting to jump ahead and start speaking the language, even if I haven't fully mastered the fundamentals.

In conclusion, my learning style, while unique and multifaceted, has both strengths and weaknesses. By understanding my preferred learning methods, I can optimize my language learning experience. By balancing my auditory and kinesthetic preferences, and by harnessing my creativity and flexibility, I can continue to make progress in my English language journey.

1-2 Strategies

In contrast to styles which are permanent in learners, strategies are contextualised. In fact, they can be regarded as a mental tool kit from which learners select to solve learning problems. Research in learning strategies took off in second language education and acquisition in the end of the 1970 with the shift from finding the best teaching method to the characteristics of the good language learner. The most cited research about language learning strategies is O'Malley & Chamot (1990) who after interviewing secondary school ESL learners on the strategies they use while learning their second language come up with three main categories of strategies: the metacognitive strategies, social strategies, and cognitive strategies.

1-2-1 Metacognitive Strategies

They concern thinking about the learning process; O'Malley and Chamot (1990) identify seven groups of metacognitive strategies. These are: planning for learning (i.e., asking questions about learning objectives, learning content, learning techniques or learning strategies to use), monitoring the learning task (i.e. checking understanding, adjusting the learning techniques or strategies) and evaluating learning (i.e. assessing how successful the learning performance was and how can it be improved). These strategies were found to be of great significance for successful language learning. In fact, the metacognitive strategies of deciding about what to learn, how to learn it and evaluating the learning are abilities emphasised by several definitions of learner autonomy. Table 2.2 below presents the main metacognitive strategies and give example of each.

Table 2.2. *Metacognitive strategies* (O'Malley &Chamot, 1990)

Strategy	Description	Example
Planning	Setting goals and deciding on the approach to learning tasks.	Setting a goal to learn 20 new words per week or deciding to focus on listening practice.
Monitoring	Observing and assessing one's progress during the learning process.	Checking if a listening activity is too difficult and adjusting speed or focus on key words.

Evaluating	Reflecting on the effectiveness of learning strategies after completing tasks.	Reviewing how well you remembered vocabulary after a test and deciding whether to adjust your methods.
Self-Regulation	Controlling and adjusting your cognitive processes based on your goals and outcomes.	Pausing to clarify confusing grammar points or taking breaks to avoid burnout.
Self-Questioning	Asking questions to better understand and reinforce learning.	Asking "What does this word mean?" or "How can I use this grammatical structure in a sentence?"
Goal Setting	Establishing both short-term and long-term learning objectives.	Setting the goal of passing a B2-level exam within 6 months and focusing on specific language skills each week.
Problem-Solving	Developing solutions when faced with language learning challenges.	Using context clues to guess unknown words or rephrasing sentences to communicate an idea when unsure.
Time Management	Allocating time efficiently for different aspects of language learning.	Deciding to spend 30 minutes per day on vocabulary review, 20 minutes on speaking practice.
Seeking Feedback	Actively requesting feedback from teachers or peers to improve learning.	Asking a language partner for feedback on your pronunciation or sentence structure.
Reflective Journaling	Keeping a journal to record progress, challenges, and insights during the learning process.	Writing about language difficulties faced and strategies that worked in a learning journal.

These strategies help learners become more aware of their own learning processes, enhancing both efficiency and effectiveness in mastering a new language. Not all language learners may be aware of all these strategies which is why they might find language learning challenging or overwhelming, particularly when they are self-instructed. Introducing learners to metacognitive strategies can make a positive difference in language learning and lead to autonomous learning as some researchers has shown.

1-2-2 Cognitive strategies:

Unlike metacognitive strategies which deal with managing and controlling the learning process, the cognitive strategies are directly related to the learning content, they involve direct manipulation of the learning material, but they are more specific as they are "limited to specific learning tasks and involve more direct manipulation of the learning material itself" (Brown, 2007, p. 124). Examples of these strategies include note taking, deduction, translation, inferencing, transfer. Table 2.3 below gives a summary of the **cognitive strategies** in language learning.

Table 2.3. *Cognitive strategies* (adapted fromO'Malley &Chamot, 1990)

Strategy	Description	Example
Repetition	Repeating language material to reinforce memory and increase familiarity.	Repeating a new word several times aloud or writing it multiple times to memorize it.
Elaboration	Connecting new information to prior knowledge or creating meaningful associations.	Associating new vocabulary with personal experiences or translating a word into a known context.
Inference	Using context or known information to deduce the meaning of unfamiliar language elements.	Guessing the meaning of an unknown word in a text by looking at surrounding words or pictures.
Summarization	Condensing information into a more concise form to enhance understanding and retention.	Summarizing a chapter or conversation in your own words after reading or listening to it.
Resourcing	Using available resources (e.g., dictionaries, grammar books, online tools) to support learning.	Looking up words in a dictionary or using language apps to clarify grammar rules.
Note-Taking	Writing down key information during learning to aid in memory and understanding.	Taking notes during a listening activity to remember new vocabulary or phrases.
Transformation	Rewriting or rephrasing information in a different form to reinforce understanding.	Changing a sentence from active to passive voice, or paraphrasing a complex sentence.
Chunking	Grouping related pieces of information together to enhance memory and recall.	Grouping words into phrases or memorizing a series of related vocabulary as a set.
Visual Imagery	Creating mental images to connect new language elements with visual representations.	Visualizing an object or scene when learning vocabulary related to it (e.g., imagining a "tree" when learning the word "tree").
Practice	Engaging in repeated use of the language in various contexts to build fluency.	Practicing speaking with a partner, writing essays, or using language apps regularly.

1-2-3 Communication strategies

While learning strategies concern the control and manipulation of the input of the languge to be learned, the communication strategies pertain to communication in the target language or to the production of out-put. That is the strategies used to remedy the deficiencies in the speaking and the writing skills. These includes compensation strategies and avoidance strategies. Table 5 below summarises the different kinds of communication strategies with examples.

Table 2.3. *Communication strategies (adapted fromO'Malley &Chamot, 1990)*

Strategy	Description	Example
Paraphrasing	Rephrasing words or sentences to express the same meaning.	*Instead of "I lost my keys," say "I can't find my keys."*
Circumlocution	Describing or explaining a word you don't know.	*"It's a thing that you use to drink coffee" for "mug."*
Approximation	Using a close, but not exact, word when you don't know the exact term.	*Saying "cat" instead of "lynx" when the learner doesn't know the latter.*
Code-Switching	Switching between languages or dialects when necessary.	*Using English words when you don't know a word in the target language.*
Clarification Requests	Asking for help to understand something.	*"Sorry, could you repeat that?" or "What does this word mean?"*
Gestures/Non-verbal Communication	Using body language, facial expressions, or hand gestures to support meaning.	*Pointing at an object or miming an action to help explain.*
Filling Gaps (Guessing)	Making educated guesses when faced with unknown words or phrases.	*Guessing the meaning of a word based on context or the root of the word.*
Self-correction	Recognizing and fixing your own mistakes.	*Saying "I have went" and then correcting it to "I have gone."*
Repetition	Repeating words or phrases to reinforce understanding.	*Repeating a word several times: "Is this a table? A table? Yes, a table."*
Role Play	Practicing real-life situations by acting out roles.	*Simulating a conversation at a store or ordering food in a restaurant.*
Simplification	Using simpler words or sentences when you can't remember complex ones.	*Instead of "I would like to request a postponement," say "I want to wait."*
Mnemonic Devices	Using memory aids like associations or visual cues.	*Associating the word "banco" (bank in Spanish) with a picture of a bank.*

Chunking	Learning and using common phrases or "chunks" of language.	*"How are you?" / "I don't understand." (Learning full phrases instead of individual words.)*
Use of Visual Aids	Using pictures, diagrams, or objects to clarify meaning.	*Showing a picture of a dog to explain the word "dog" or "animal."*

These strategies help learners navigate communication in a new language, manage gaps in their knowledge, and maintain fluidity in conversation even when they don't know every word.

1-2-4 Learner Autonomy and strategy instruction

Central to the consideration of the role of learner styles and strategies in language learning is the concept of learner autonomy. Indeed, there were so many debates and discussions about the concept that has become "a slippery idea: it is not clear whether the term denotes a behaviour or an attitude; a right; or a responsibility" Tschirhart and Rigler (2009, p. 71). Learner autonomy has become a "buzzword" Pemberton (1996, p.2) in language education due to the "changing winds and the shifting sands" (Brown, 2007, p.130) that has appeared throughout the history of language education. The shift from teacher-centred methodologies to methods that put the learner at the centre of the learning process contributed to the introduction of learner autonomy in language education. Since the concept traced its origin from politics (it came as an answer to a western population demand for more individualism), it was confused with other terms in education such as independent learning and self-directed learning. However, landmark publications such as (Holec, 1981; Little,1991 Benson, 2001) established somehow a consensus about what autonomy is and what it is not.

For example, Holec (1981, p.3) defines learner autonomy as "the ability to take charge of one's own learning" and elaborates that "to take charge of one's own learning is to have, and to hold the responsibility for all the decisions concerning all aspects of this learning [...]", i.e., "determining the objectives; defining the contents and the progressions; selecting methods and techniques to be used; monitoring the procedure of acquisition (rhythm, time, place, etc.); evaluating what has been

acquired". Pavia (2006) observes that Holec's definition provided the essence of learner autonomy which is learners' central role in managing the learning process. In other words, Holec's definition of autonomy emphasises the learner's metacognitive awareness, i.e., metacognitive strategies of making decisions about purposes of learning, when and how to learn, monitoring and evaluating learning.

In addition to metacognition, autonomous learners, as described by Benson (2001), need to have control over their learning or cognitive process and need to have the skill of carrying out the appropriate choices or decisions. Such character is related to the actual performance of learning, i.e. cognition, using cognitive strategies which Ellis (1997) defines as "those that are involved in the analysis, synthesis, or transformation of learning materials". Among the cognitive strategies used in language learning, Oxford (1990) mentioned reasoning, synthesizing, outlining, reorganizing information.

Research findings suggest that there is a link between autonomous behaviour and the use of learning strategies (Brown, 2007; Oxford, 1996; Wenden, 1991). Most of these studies suggest that strategy instructions (cognitive and metacognitive) lead to the promotion of learner autonomy. For example, Darasawang and Reinders (2010) contend that "one way to develop learner autonomy is to train students how to use cognitive and metacognitive strategies so that they can manage their learning without the help of teachers" (para3 as cited in Haque, 2019, p.2016). Similarly, Wenden (1991) argues that autonomous students' behaviour inevitably involves the use of strategies.

For a long time, it was considered that acquiring these strategies implied acquiring greater level of autonomy; therefore, several approaches have been presented for the acquisition of learning strategies. Among these are : 1) direct advice on language learning strategies and techniques, 2) training based on " good language learner" research and insights from cognitive psychology, 3) training in which learners are encouraged to experiment with strategies and discover which work well for them, 4) synthetic approaches embedded in language classroom programmes, 5) integrated approaches treating learning strategies as a by-product of language learning, 6) Self-directed approaches in which learners are encouraged to train themselves through reflection, self-directed learning activities (Benson, 2011).

However, according to Benson (2001) the claim that strategy use leads to autonomy need to be treated with caution. He points out that some research has found out that some

learning training programmes end up instructing strategies in a decontextualized way making learners knowing about the strategy without actually handling its use.

1-2-5 Tasks and activities about strategies

Answer the following quiz about learning strategies then compare your answer with your classmates

1.Which of the following best describes a metacognitive strategy in language learning?

A) Repeating new vocabulary aloud until it is memorized.

B) Asking the teacher to explain the meaning of difficult words.

C) Monitoring one's own understanding and making adjustments to learning techniques accordingly.

D) Using visual aids or gestures to help explain an unknown word.

2. When a learner uses a dictionary to look up unknown words, this is an example of which cognitive strategy?

A) Memorization

B) Contextualization

C) Resourcing

D) Self-correction

3. Which communication strategy involves describing a word or concept in a way that approximates the meaning when the exact word is unknown?

A) Paraphrasing

B) Circumlocution

C) Repetition

D) Code-switching

4. Which of the following scenarios best illustrates the use of a metacognitive strategy in language learning?

A) A learner rewrites a sentence multiple times to understand the structure.

B) A learner reflects on which study methods were most effective after a test and plans future strategies.

C) A learner asks the teacher to clarify the pronunciation of a difficult word.
D) A learner memorizes a list of phrases for an upcoming conversation.

5. What is the primary purpose of using "chunking" as a cognitive strategy?

A) To break down complex information into smaller, manageable pieces.
B) To visualize the language in context for easier recall.
C) To engage in repetitive practice for automaticity.
D) To identify key concepts or themes in the target language.

6. In language learning, which communication strategy involves switching between languages or dialects to overcome communication challenges?

A) Code-switching
B) Circumlocution
C) Self-correction
D) Approximation

7. A learner who is unsure of the meaning of a word but uses contextual clues from the surrounding text or conversation is engaging in which cognitive strategy?

A) Inferencing
B) Note-taking
C) Summarization
D) Memorization

8. If a learner attempts to explain a new word by describing how it is used rather than directly translating it, which communication strategy are they using?

A) Code-switching
B) Paraphrasing
C) Clarification request
D) Repetition

9. A language learner notices that they are having difficulty with pronunciation and decides to consciously slow down their speech to improve clarity. This is an example of:

A) Metacognitive regulation
B) Cognitive rehearsal
C) Communication management
D) Self-correction

10. Which of the following best describes the use of "filling gaps" as a communication strategy in language learning?

A) Guessing a word's meaning based on its root or surrounding context when it is unknown.
B) Asking the interlocutor to repeat or clarify a misunderstood statement.
C) Using non-verbal cues such as gestures to support communication.
D) Describing a concept by providing an example or analogy when the word is forgotten.

11. Which cognitive strategy involves breaking down a new language into its individual parts, such as sounds or grammar rules, for easier learning?

A) Analytical strategy
B) Resourcing
C) Memorization
D) Summarization

12. Which of the following is an example of a metacognitive strategy that enhances self-awareness in language learning?

A) Creating flashcards to review vocabulary.
B) Monitoring one's progress and adjusting learning strategies based on results.
C) Practicing specific dialogues in the target language.
D) Listening to audio material to improve comprehension.

13. What is the key difference between cognitive and metacognitive strategies in language learning?

A) Cognitive strategies focus on explicit language learning techniques, while metacognitive strategies involve monitoring and regulating the learning process.
B) Cognitive strategies are unconscious processes, whereas metacognitive strategies are deliberate.

C) Cognitive strategies rely solely on memorization, while metacognitive strategies use various resources like dictionaries.
D) Cognitive strategies include self-reflection, while metacognitive strategies do not.

14. Which of the following best illustrates the use of "self-correction" in a language learning context?

A) Asking the teacher for feedback after an oral presentation.
B) Realizing that you used an incorrect verb form and immediately fixing it in conversation.
C) Memorizing vocabulary through spaced repetition.
D) Rewriting a sentence to improve its grammatical accuracy.

15. A student uses the strategy of "visualization" to help memorize new vocabulary words by associating them with images in their mind. This is an example of:

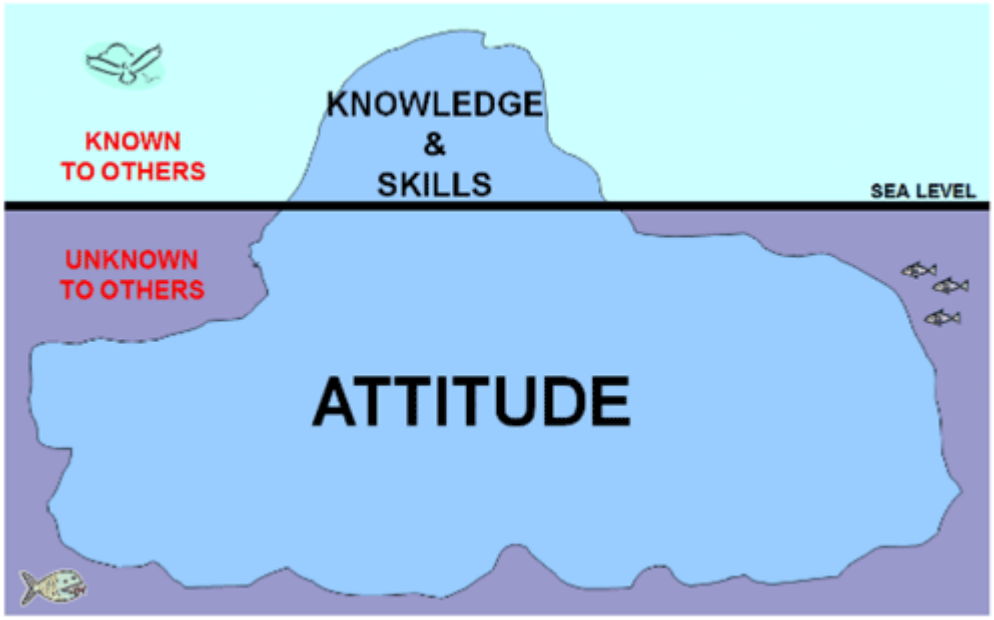
A) A metacognitive strategy
B) A cognitive strategy
C) A communication strategy
D) A motivational strategy

2 Affective Differences/ The Affective Domain

Introduction

Learners' cognitive differences are only one dimension of the whole picture of individual differences, as figure 6 below suggests human individual learning looks like an ice-berg, where the acquired knowledge and skills form only the tip of that iceberg; beneath that surface is the hidden interface which is deep and complex. Understanding human learning involves diving into the depth of learners 'attitudes which may be unknown even to the learner himself. These attitudes are the sum of a learner's thoughts and feelings about himself and about his or her surroundings.

Figure 7: the known versus the unknown in human learning (source: https://teaching.usask.ca/articles/receiving-to-valuing-characterization.php June 2024)



It was already stated in the first semester lectures (the humanists' view) that human beings are not only physiological and cognitive beings, but they are above all emotional beings. This emotional side of the human being is often referred to as the affective side or the affective factor. Although researchers are faced with several difficulties and obstacles in researching this unique human facet, an understanding of human learning would be incomplete without a grasp or at least a glimpse of how affect and personality factors shape human learning in general and second language learning in particular. In fact, as noted by Brown (2007): ''careful systematic

study of the role of personality in the learning process has already led to greater understanding of the language process and to improved language teaching designed''. (p.153)

2-1Definitin of the affective domain: Bloom's taxonomy

The affective domain refers to the emotional side of the human beings. It includes his feelings about himself, feelings about those around him, and feelings towards his environment or the world in which he/ she lives. It is often stated that affect and cognition are juxtaposed ; in other words, affect has an effect on cognition and vice versa.

According to Bloom and his colleagues (Krathwohl, Bloom, Masia, 1973), the affective domain includes the manner in which we deal with things emotionally, such as feelings, values, appreciation, enthusiasms, motivations, and attitudes. It focuses on the attitudes, values, interests, and appreciation of learners. The hierarchy associated with it begins with receiving and listening to information, and extends to characterization or internalizing values and acting upon them. It focuses on helping learners understand what their own values are and how they have developed. The five major categories are listed from the simplest behaviour to the most complex in the table 6 below

Table 6. *Bloom's taxonomy of the affective Domain*

Category	**Example and Key Words (verbs)**
Receiving Phenomena: Awareness, willingness to hear, selected attention.	**Examples**: Listen to others with respect. Listen for and remember the name of newly introduced people. **Key Words**: acknowledge, asks, attentive, courteous, dutiful, follows, gives, listens, understands
Responds to Phenomena: Active participation on the part of the learners. Attend and react to a particular phenomenon. Learning outcomes may emphasize compliance in responding, willingness to respond, or satisfaction in responding (motivation).	**Examples**: Participates in class discussions. Gives a presentation. Questions new ideals, concepts, models, etc. in order to fully understand them. Know the safety rules and practice them. **Key Words**: answers, assists, aids, complies, conforms, discusses, greets, helps, labels, performs, presents, tells
Valuing: The worth or value a person attaches to a particular object, phenomenon, or behavior. This ranges from simple acceptance to the more complex state of commitment. Valuing is based on the internalization of a set of specified values, while clues to these values are expressed in	**Examples**: Demonstrates belief in the democratic process. Is sensitive towards individual and cultural differences (value diversity). Shows the ability to solve problems. Proposes a plan to social improvement and follows through with

the learner's overt behavior and are often identifiable.	commitment. Informs management on matters that one feels strongly about. **Key Words**: appreciates, cherish, treasure, demonstrates, initiates, invites, joins, justifies, proposes, respect, shares
Organization: Organizes values into priorities by contrasting different values, resolving conflicts between them, and creating a unique value system. The emphasis is on comparing, relating, and synthesizing values.	**Examples**: Recognizes the need for balance between freedom and responsible behaviour. Explains the role of systematic planning in solving problems. Accepts professional ethical standards. Creates a life plan in harmony with abilities, interests, and beliefs. Prioritizes time effectively to meet the needs of the organization, family, and self. **Key Words**: compares, relates, synthesizes
Internalizes Values (characterization): Has a value system that controls their behavior. The behavior is pervasive, consistent, predictable, and most important characteristic of the learner. Instructional objectives are concerned with the student's general patterns of adjustment (personal, social, emotional).	**Examples**: Shows self-reliance when working independently. Cooperates in group activities (displays teamwork). Uses an objective approach in problem solving. Displays a professional commitment to ethical practice on a daily basis. Revises judgments and changes behavior in light of new evidence. Values people for what they are, not how they look. **Key Words**: acts, discriminates, displays, influences, modifies, performs, qualifies, questions, revises, serves, solves, verifies

(note: adapted from:
https://warwick.ac.uk/fac/soc/ces/news/mathematicsresilience/proceedings/bloomaffect_taxonomy.pdf)

Simply put, the fundamental level and the **first element in the hierarchy** of affectivity begins with **receiving**. Being aware of the environment, people and the phenomena surrounding you and allow stimulation rather than ignoring it. This awareness or reception is revealed in selective or purposeful attention. **The second level is to be responsive**, that is to react by engaging commitment with a person or a phenomenon. Such response might start as acquiescence to develop later and be voluntarily. **The third level** in the hierarchy is **valuing** or placing worth and estimating highly a principle, a character, or a person. **The fourth level is the organization** of values into a system of beliefs with clear relationship among these beliefs and values, put differently, establish an idiosyncratic hierarchy of beliefs or values.

The **fifth and the last level** in the taxonomy is **the internalization** of values. Individuals become consistent with the value system they have internalized and act based on their individualized belief system.

Bloom designed his taxonomy to account for the affective domain in education; however, his taxonomy was proved valuable for other domains such as psychology and sociology to understand human behaviour regarding affect and the formation of the affective domain. Indeed, the five-level taxonomy seems to be relevant for a variety of human behaviour aspects including language learning. The reception, response, valuing, organisation, and internalisation of a system of value can help understand different types of attitudes regarding language learning right from motivation to learn a language to success and failure in learning it. Because learners are receptive, their decision to learn a language may stem from observation and evaluation of this second language in their community or in the world. This evaluation which is no more than the placement, organisation, and internalisation of values towards this language is, in part, behind students' success or failure in language learning.

Bloom's taxonomy is merely a theoretical conception of the affective domain formation. The tangible manifestation of this affective domain is revealed in some human characteristics and attitudes towards themselves and others which were given several names or concepts such as self-concept, self-esteem, locus of control, attribution theory, anxiety, motivation, and attitudes or beliefs among others. The following sections introduces each of these affective factors and their rapport to learning and language learning in particular.

2-2 Self-Concept

Self-concept is a multifaceted term referring to how individuals perceive or conceptualize themselves; the concept refers to an individual's perception and beliefs about himself, including his abilities, traits, and values. It has been defined by Purkey& Novak (1984 as cited in Williams & Robert, 1997, p .97) as: ''the totality of a complex and dynamic system of learned beliefs which each individual holds to be true about his or her personal existence and which gives consistency to his or her personality''. The term is multifaceted because it encompasses three other concepts: self-image, self-esteem, and self-efficacy. These three dimensions are involved in a dynamic and reciprocal relationship with each other.

Self-image refers to how individuals perceive themselves; it includes their physical appearance, abilities, and personality traits. It is the mental picture one has of themselves. Self-esteem, on the other hand, is the overall evaluation or feeling of self-worth that a person has about himself. Put simply, it is about how much one values themselves and believe in their abilities (Williams & Burden, 1997).

While self -image influences self-esteem, they are not the same. A person may have a positive self-image, but low self-esteem if they do not value themselves highly. Conversely, someone may have a negative self-image, but high self-esteem. For example, a person may have positive beliefs in his abilities and potential (positive self-image), yet he could not fulfil much and apply his real and full potential because of laziness or some external circumstances; as a result, he may have low self-esteem.

By contrast, a person may have high self-esteem as a result of his achievements and abilities in handling difficult situations but maintain low self-image due to his upbringing, his physical shape, or even a childhood trauma. The influence of childhood in the construction of self-concept is detailed below.

2-2-1The Construction of self-concept

As young children begin to construct their own understanding of the world, they also begin to shape or build their views and opinions about themselves and about their place and role within this world. This constant construction and reconstruction results in the evolving self-concept which influences children's understanding and perception of the world. Put differently, the relationship between individuals' views of the world and their perception of themselves is dynamic and reciprocal, i.e., the way individuals view the world influences their self-concept, and this conception of self affects their perceptions of the world. For instance, a child in a safe environment is likely to construct a positive perception of the world and the people surrounding him, which will lead to a positive perception himself and of his role in this environment (see . Additionally, the influence of significant others and social norms plays a crucial role in shaping self-concept. Through acceptance and support from significant others, individuals are more likely to develop a positive self-concept.

Social comparison theory (Festinger, 1954; Damonn and Hart, 1982; Brown,1986;) has attempted to account for the impact of the social environment on the construction of self-

concept. According to this theory, people have predisposition (albeit to differing degrees) to compare themselves with others and to develop their self-concept based on those comparisons and the information they receive from others about their abilities, physical appearance, and overall behaviour. Young learners, in particular, tend to compare themselves and receive information about themselves from their parents, their teachers, and their peers, respectfully.

This theory is relevant to the classroom context because it is in the classroom that young and teenage learners will receive most of the feedback (negative or positive) about their abilities, their social attraction and acceptance from the teachers and peers. This feedback will influence learners' self-perception, sense of achievement, motivation to achieve, and the establishment of self-efficacy. In fact, research show that children are very sensitive observers and their attitudes to themselves and other can be affected by classroom events and patterns of interaction. For example, research (Sert Agir, 2019; Burnett,1999; Leefolt et al., 2016) suggests that children are very sensitive to teachers' behaviour patterns and it can have direct impact on their self-esteem and motivation both in the long and the short term.

Because of its multifaceted nature, self-esteem remains a complex area to investigate, in particular, the line between self-esteem and self-concept is blurred due to the interaction and the reciprocal relationship between the two concepts. To understand the difference, Carl Rogers suggests that there are two views about oneself: the actual view which represent self-concept and the ideal view of oneself that he aspires to attain. The distance between the two represents self-esteem. Given this definition, it can be argued that, self-esteem is in constant change as a result of efficacy of achievement and the type of feedback supplying the actual self-concept and the ideal self-concept. Any task where success is not guaranteed may pose a serious threat to ones' self-esteem, this is, in particularly, relevant to the language learning context where the probability of failure and making a fool of oneself is probable (Allwright &Bailey, 1996 p. 178).

2-2-3 Self-esteem in Language Learning

Indeed, in language learning more than in most other areas, our self-esteem can be endangered. When we are trying to learn a second language, the self becomes vulnerable because it is depraved of its vehicle of expression. The self, speaking the target language, is a limited version of ourselves (Allwright & Bailey, 1991). Therefore, learners cannot give their

best and reflect the actual or the ideal self. As a result, the study of self-esteem influence in language learning is crucial and can illuminate blurred areas of second language acquisition.

An accepted definition of self-esteem is the one presented by Coopersmith (1967, as cited in Brown, 2007, p145-155):

> By self-esteem, we refer to the evaluations that individuals make and customarily maintain with regard to themselves; it expresses an attitude of approval or disapproval, and indicates the extent to which individuals believe themselves to be significant, capable, successful, and worthy. In short, self-esteem is a personal judgement of worthiness that is expressed in the attitudes that individuals hold towards themselves. It is a subjective experience which the individual conveys to others with verbal reports and other overt expressive behaviour.

Just like self-concept, self-esteem is also multifaceted and is expressed at various levels. Overall, three main levels of self-esteem can be found in the literature:

Global self-esteem: It is the prevailing and general assessment one makes about his own worth over time and across a number of situations. It is the means of overall self-appraisal. It is said to be permanent and stable in adults and resistant to change unless with extensive thSituational self-esteem or specific self-esteem: as the name indicates refers to a person's perception of his own worth in relation to particular life areas. Some individuals may have high self-esteem at work, but low self-esteem in maintaining a stable family life at home. Others would maintain high self-esteem within the realm of education but low self-esteem in athletic competitions. Specific self-esteem, on the other hand, is related to defined traits and personal characteristics like for example intelligence, communicative skills, gregariousness, empathy, and flexibility.

Task Self-esteem

Task self-esteem relates to particular task within a specific situation. For example, within the educational domain, it might be related to specific subject area such as mathematics or algebra within mathematics. Task-self-esteem within language learning may be related to one particular language skill such as reading, writing, listening, or particular classroom activities and tasks.

According to Brown(2007), one of the earliest studies conducted on the effect of self-esteem on language learning was Heyde (1979). The study investigated the corelation of the three levels of self-esteem with oral performance among American college students studying French as a second language. The highest level of correlation occurred between task-self-esteem and oral performance in French.

In recent years, in spite of a general acknowledgement of the crucial role of self-esteem in education in general, research into self-esteem in second language learning are scarce. According to Dörnyei and Ryan (2015, p.184): "…. apart from a pedagogical publication containing self-esteem-boosting activities for the L2 classroom (de Andrés & Arnold, 2009), it has not really been explored in its own right". In his collection of papers on self-esteem in language learning (Rubio, 2007) reiterates that self-esteem deserves far more attention than it has received so far, with the various authors identifying potential connections between self-esteem and other aspects of language learner psychology, such as motivation, beliefs, and anxiety. These calls, however, have mostly been ignored as SLA researchers have by and large eschewed self-esteem as a viable area of research (Dörnyei &Ryan, 2015).

Undeniably, self-esteem is related to every learning experience including language learning. What remains unknown, however, is the classical chicken-or-egg dilemma. In other words, does high self-esteem cause success in language learning? Or does language learning success lead to high self-esteem? While research is still trying to answer this question, it can be argued that self-esteem and language learning maintain a reciprocal relationship. For example, in a longitudinal study involving Taiwanese EFL freshmen, Liu (2010) finds that academic self-concept and English proficiency were "significantly correlated," prior self-concept predicted later English performance, and prior English performance predicted later academic self-concept. In Saudi Arabia, Alrabai (2017) examined the relationship between self-esteem and language learning among 264 Saudi students and found a strong positive correlation ($r = 0.414$) between learners' self-esteem and their EFL achievement. Likewise, Narafshan &Noori (2018) demonstrate that the other side of loop is also possible, that is language learning experience has an effect on positive self-esteem. This quasi-experimental study reported a "statistically significant improvement in the self-esteem" of students after a five-month positive-psychology-based EFL course.

In brief, self-esteem is an important affective variable that influence and is influenced by language learning. Yet, as a research area, it needs further exploration.

2-2-3 Questions and tasks about self-concept

1) For each statement, complete with the right answer

1. The relationship between how individuals view the world and how they view themselves is:

A. Fixed

B. Dynamic and reciprocal

C. Based only on age

D. Based only on genetic factors

2. According to Social Comparison Theory, self-concept develops through:

A. Interaction with family members

Comparing oneself to others and receiving feedbacks

C. Emulating parents and elderly siblings

D. Being attentive to others feedbacks

3.Carl Rogers distinguishes between

A.Social intelligence and artificial intelligence

B.The actual self and the ideal self

C.social comparison and social recognition

D. Self-image and sel-esteem

4. 4. The most general and stable level of self-esteem is:

A. Task self-esteem

B. Situational self-esteem

C. Global self-esteem

D. Academic self-esteem

2)Tasks

Task 1: Reflection Paragraph

Write a short paragraph (5–6 lines) answering the following question: **How can feedback from teachers or peers influence your self-concept while learning a new language?**

Task 2: Classify the Levels of Self-Esteem

Classify each statement under one of the three types:

- Global self-esteem
- Situational self-esteem
- Task self-esteem

1. “I feel generally capable and successful as a person.”
2. “I am good at math but weak in sports.”
3. “I understand English well, but I get nervous when speaking.”
4. “I feel confident about my spelling skills.”
5. “I get anxious when the teacher asks me to read aloud.”
6. “Overall, I am satisfied with who I am.”

Task 3: Case Study Discussion

Read the scenario:

“A learner receives frequent negative feedback about his pronunciation and gradually stops participating.”

Discuss:

1. How were his self-concept and self-esteem affected?
2. Suggest three strategies that could help him.
3. Explain the teacher’s role in improving the situation.

2-3 Attribution theory, Locus of Control and Self-efficacy

Self-esteem is intricately related to the notion of self-efficacy and attribution theory. The latter refers to causes and reasons of success or failure that learners tend to account for their success or failure. It is based on the seminal work of Brenard Weiner (1985, 1986, 2000). For Weiner, there are four main factors that people attribute their failure or success to: ability, effort, perceived difficulty of the task, and luck. Two of these factors are internal to the learner and within his scope of control: ability and effort. The other two are external: perceived difficulty of the task and luck. According to Weiner, individuals are most likely to explain the reasons for their success or failure to one of these factors. For example, failure in a language exam might be interpreted as being due to the lack of effort provided in the preparation for the exam or to the perceived difficulty of the exam itself.

Relating one's success or failure to external factors or internal factors is attended to by another theory, namely the **locus of control** theory or **LoC** (Rotter, 1966; Findley and Cooper, 1983). According to this theory if an individual perceives that the factors of his success/failure are within his locus of control, then, we say that he has an internal locus of control. Conversely, if a person thinks that his success is determined by external factors such as luck or difficulty of the undertaken task, then we say that he has an external locus of control. A great deal of research has been carried out in examining locus of control and its relationship with perceived success in life, particularly with regard to academic achievement. Reviewing such studies, Findley and Cooper (1983) conclude that the internal beliefs about being in control of factors or events are associated with greater academic achievement.

This is where **self-efficacy** comes in. It is defined as a person's perception of his ability in performing well. If a person feels that he is capable of performing a given task (he maintains a high level of self-efficacy), then he is more likely to provide the effort needed for the performance of that task. If he falls short of the goal he set in achieving the task, he would attribute such failure to not enough effort expanded on the goal rather than to external factors as bad luck. In contrast, someone with low level of self-efficacy, would attribute his failure to external factors (bad luck, bad conditions, inadequate circumstances and the like of external factors). Brown (2007) observes that such attitude is considered as an unhealthy psychological behaviour to bring to any task. What is more, due to an overall low level of self-efficacy, some students would attribute their low achievement to their initial lack of ability in performing highly. Attributing one's failure to external factors or to an inherent low self-efficacy are two abnormal psychological behaviour that contribute to an initial sense of low self-fulfilment which does not help the learning process.

2-3-1 Questions and Tasks about Attribution theory, self-efficacy, Locus of control

Task1: Read the situation and answer the questions in 5–6 lines:

A student fails a speaking test and says, “The exam was impossible, the room was noisy, and the teacher didn’t like me.”

1. Identify whether the student is using an internal or external locus of control and explain why.
2. Suggest how increasing the student’s self-efficacy could change the way they interpret this failure.
3. Propose one practical classroom strategy that could help the student develop healthier attributions**.**

Task 2

Complete the following statements with the appropriate terms from the lecture

1. Attribution theory explains how learners interpret the causes of their _____ or _____.

2. According to Weiner, the four attribution factors are: ability, _____, perceived _____, and _____.

3. Ability and effort are _____ factors because they are under the learner’s control.

4. Task difficulty and luck are _____ factors.

5. Believing that outcomes depend on one’s own actions reflects an _____.

6. Believing that outcomes depend on luck or circumstances reflects an _____.

7. _____ refers to a person’s belief in their ability to perform a task successfully.

8. Learners with high self-efficacy attribute failure mainly to lack of _____.

9. Blaming failure only on external causes is considered an _____ attitude.

2-4 Willingness to Communicate (WTC)

In recent research in language acquisition, there has been an increasing interest in learners' willingness to communicate (WTC). Willingness to communicate in second language (L2 WTC) originates from the concept of *communication apprehension* in first-language research (McCroskey, 2009), which refers to the fear or anxiety experienced during real or anticipated communication in one' first language. WTC explains how several factors interact to influence a person's desire of initiating communication in a specific situation. It was MacIntyre, Clément, Dörnyei, and Noels (1998) who introduced L2 WTC to SLA. Their observation was that many competent learners still avoid L2 communication despite the claim of communicative language teaching to build communicative abilities. This shows that additional mediating factors exist between possessing competence and actually using it (Dornyei & Ryan, 2015).

2-4-1 Definition of Willingness to Communicate

WTC is defined by MacIntyre et al, (2001, p.369) as "the intention to initiated communication given a choice. It was hypothesized that orientations toward language learning as well as social support would influence students' WTC in a second language." Put in another way, willingness to communicate refers to an individual's inclination or readiness to engage in communication and interact with others in a given language or social context. It reflects the individual's motivation, confidence, and comfort level in using the target language to express themselves and participate in various communicative activities.

2-4-2 the link between WTC and other affective factors

Willingness to communicate is influenced by factors such as language proficiency, self-confidence, social norms, cultural background, and the perceived importance of communication in a particular situation. It plays a crucial role in language learning and acquisition as it affects the frequency and quality of language use and interaction. Therefore, willingness to communication is affected and might affect other affective and personality factor as self-concept in general, self-esteem, motivation, personal traits as

extrovertness or introvertness. More importantly, it plays a decisive role in language proficiency acquisition.

For example, in an earlier study MacIntyre et al.(1998) found out that willingness to communicate does not necessarily reflect an underlying communicative ability, and that there are other affective and cognitive factors contributing to learners' willingness to communicate. These are motivation, personality, inter-group climate, and two levels of self-confidence: "state-communicative self-confidence", and a global level of self-esteem, simply labelled "L2 self-confidence" (MacIntyre et al., 1998, p.547). Both self-confidence factors play a decisive role in determining one's willingness to communicate.

Clément et al. (2003) showed that WTC is strongly linked to language anxiety. However, MacIntyre and Legatto's (2011) use of the idiodynamic method revealed a more complicated relationship in which anxiety and WTC can correlate positively, negatively, or not at all depending on the moment. MacIntyre et al. (2001) connected WTC to Ajzen's (1988) theory of planned behaviour, arguing that perceived behavioural control and learner beliefs play an important role in shaping WTC (Dörnyei & Ryan, 2015).

Cross-culturally, WTC would vary depending on the community type: individualistic or collectivist communities. Therefore, findings of research on this aspect of learner psychology would be different, if not contradictory, depending on the cultural community where the research takes place. For example, Yashima et al. (2004) highlights cultural influences on WTC, including how WTC—originally developed in North America—needs adaptation to different cultural contexts.

Despite its importance in understanding interactional patterns in language classes be it on line or in-class, WTC has received little attention from researchers, particularly in Algeria, compared to other ID traits such as motivation or anxiety. Undoubtedly, WTC in the digital era opens wide perspectives for researchers from different communities including the Algerian one. Among the research topics that could be investigated is a comparison between online WTC and the in-class one and the effect of

group dynamics and self-esteem or overall self-confidence on WTC. Another area of research could be the relationship between WTC in L1 and in the L2. Nevertheless, it must be noticed that willingness to communicate can be perceived within an overall willingness to learn or acquire a second language, i.e., motivation.

2-4-3Questions and tasks about WTC

1 Explain how willingness to communicate is influenced by affective factors such as anxiety, motivation, personality, and self-confidence.

2 Compare learners' willingness to communicate in online environments with their willingness to communicate in classroom settings. Identify at least two factors affecting each context.

3 Which of the following communication acts would you feel comfortable doing in your L1, which would you feel comfortable doing in a language you are learning?

	L1	L2
	Yes/no	Yes/no
Volunteer an opinion in front of people, such as a class or a meeting		
Ask for help in a shop		
Tell a joke		
Make a telephone call to check some details		
Give an oral presentation		

Were there any differences between your L1 and L2 responses? How would you explain the differences.

2-5 Motivation

Of all the concepts discussed above, motivation is the most familiar and the one that has attracted most interest from both researchers and teachers. It is quite common that teacher attribute students' failure to their lack of motivation. However, there has never been an explicit consensus about what it meant to be motivated, nor were there common strategies to motivate learners. Different schools of thoughts have presented varying definitions and approaches to understand motivation. The behaviourists, the cognitivists, and the constructivists, each have presented their own model to understand motivation.

Before presenting the different definitions and perceptions of motivation, an overview of the most common or the layman definition of motivation need to be considered. For example, in *the New Oxford English dictionary* (1998) we read the following definition of motivation: "stimulate someone's interest or enthusiasm for doing something: it is the teacher's job to motivate the child at school". Such a definition understates that motivation is a situation that is led to by somebody or something. In other words, to be in a motivated state, there must be an external driving force. This understanding aligns with the behaviourists' approach to motivation and the push-pull theory. Put in another way, the layman understanding of the term motivation is the same as the behaviourists' conception of this term.

2-5-1 Motivation according to the Behaviourists

Many educational practices related to motivation are drawn from the behaviourist's approach. For example, the reward versus punishment techniques to motivate or demotivate a learning behaviour and the stimulus-response-reinforcement principle have been part of different educational settings around the world. Since learners are considered passive organisms, their driving forces for fulfilling whatever task consists in the stimuli provided by teachers or parents and the reinforcer, that is to say the motivational forces are external or extrinsic. This perception of motivation is, in turn, related to the push-pull concept according to which people are either pulled by

external stimuli such as rewards and incentives or they are pushed by subconscious forces or drives within themselves (Williams et al.,2015).

The second half of the twentieth century, there was a shift in motivation theory from a needs base towards a cognitive perspective. This shift has had its impact on the teacher and the learner roles in the learning process. While the conception of motivation as an external driving force put the teacher at the centre of motivation to learn process, the conception of motivation as internal guiding force places the learner in the central role and suggests a whole different set of challenges for the teachers.

2-5-2The Cognitive Theories of Motivation

Cognitive theories are concerned with how our thinking patterns shape our attitudes and behaviour. Among these theories is the **expectancy-value theories** which explains behaviour in terms of whether the individual expect success or failure from an action and the perceived worthiness of that action. According to Williams et al. (2015, p. 102) "expectancy-value theories describe behaviour in terms of on-going mental-cost benefits calculations". Over the years, researchers have theorized motivation in many different ways based on the expectancy-value framework. In brief, these theories suggest that learners, in general, are not willing to take any action or do any effort if they feel that the value of this work is not worth all the efforts and the pains, or if they perceive that they do not have the requirements to attain the objectives.

Another influential model of motivation is called **achievement theory** (Atkinson & Birch, 1978; McLelland et al., 1953). It derives its principles from a basic human need to improve and strive for excellence. The feeling of being capable at a given activity is central to human motivation to take action.

Goal-setting theory Locke and Latham's (1994) is yet another theory within this cognitive perspective on motivation. They consider three main aspects of the goals we set ourselves: 1) their specificity, 2) their perceived difficulty, 3) the degree of commitment. Put differently, individuals commit themselves to achieve some goals when the expectancy of success is high and their perceived level of task difficulty is

surmountable. That is learners are unlikely to be motivated if the goals are not specific within a period of time and if they think that the goal set is too difficult and cannot be handled with the means they have. One way of motivating learners in the language classroom is to encourage them to set goals (short-term and long-term) and make sure that their goals are realistic, i.e. achievable (for example, how many words to learn a week, write emails once a day, watch series regularly).

Another important distinction in the nature of goals concerns the orientation of the goal: there is **a mastery-goal orientation and a performance-goal orientation**. Individuals with mastery-goal orientation seek to master the skill itself (this skill may be playing a musical instrument, painting, or learning a foreign language). In contrast, performance-goal oriented learners are mostly interested in the performance in public rather than the skill itself. For instance, a learner of a second language studies the language only for the sake of the required grade. Then he may perform well the day of the exam but his language skills will stay at the level of the exam requirements (Williams et al., 2015).

To explain how people manage the external driven factors and the internal ones, Deci and Moller (2007), Deci and Ryan (2002) presented **self-determination theory**. It suggests that people are constantly trying to manage three main psychological needs: autonomy, a need to feel in control of your own action; relatedness, a need to belong or feel connected to other people; and competence, a need to feel capable of accomplishment. Contrary to animals which are driven only by external forces, people undertake actions only when they feel in control, capable and that their action is valued by the community they belong to. Self-determination theory is often understood, in terms of intrinsic and extrinsic motives. Someone is said to be intrinsically motivated, if he carries out an activity for the enjoyment or satisfaction it provides. One is extrinsically motivated if he wants to achieve some goals that is not related to the activity itself. However, the distinction between extrinsic and intrinsic motivation seems subjective as what seems to be intrinsic for some tend to be extrinsic for others. As a useful rule of thumb, motivated behaviour tends to be more focused and sustained when

the motives are internal to the learner. Nevertheless, some external drives convert into internal ones when their external objectives are attained.

Although the cognitive and rational calculations are crucial in accounting for human drives and motives, they cannot be by themselves the end of the story of human motivation. Emotional drives are quite unpredictable as they are fast and irrational (Williams et al.2015) and may have a crucial impact on the rise and fall of motivation. We may have heard of stories of people who were highly intrinsically motivated to perform well in languages, then their motivation faded because their attempts were faced by mocking or bullying. Therefore, teachers need to take into account this emotional side of motivation into account because the emotional state override the cognitive processes.

The different perspectives of motivation presented above concern human motivation in general; however, there has always been a prevailed assumption that foreign language learning is different from any other type of human learning which has influenced research on foreign language motivation (Ushioda, 2012).

2-5-3 Motivation in Foreign Language Education

The motives behind willing to learn a foreign language differ according to the context, the society and the psychology of the learner; thus, several models of foreign language learning motivation have been presented:

2-5-3-1The social-educational model

Prior to the 1990's, L2 motivation theory was dominated by the ideas of the Canadian social psychologists: Robert Gardner and Wallace Lambert (1972). This model is influenced by the Canadian social attitude towards the target language, its culture and people. Gardner (1985) distinguishes between two types of language learning motivation: integrative motivation concerned with feelings of identification with the speakers of the target language and an instrumental motivation connected with the reward obtained from learning the target language. Gardner contends that learners

with integrative motivation tend to show a more sustained effort to learning a second language than those who were learning for pragmatic or material reasons. This model attracted a lot of attention from second language learners at that time, for it was not quite common to put emphasis on the role of the language learner in acquiring the second language. However, this model seems more adequate to learners in communities where two or more languages are used rather than language learners inside the classroom. Since the 1990's the focus of foreign language learning motivation shifted away from social psychology towards the actual events occurring in the language classroom.

2-5-3-2The Process Model of L2 Motivation:

This model was presented by Dörnyei and Otto (1998); it explored the temporal dimension to L2 learning motivation. The model identifies three stages of motivation: the pre-actional, the actional stage, and the post-actional stage. The pre-actional stage concerns the intent of taking action to acquire a given behaviour, and it relates to setting goals. The actional stage concerns how motivation is sustained in the pursuit of the goals set at the pre-actional stage. The post-actional stage relates to how people evaluate the execution of the initial goals; this evaluation, in turn, feeds into the pre-actional stage for subsequent action. This model understates that language learning is a long-term process during which the learner may experience ups and downs that can affect his or her motivation.

Indeed, the recent trend in language education approaches motivation not as a fixed attribute, but as Ellis& Larsen-freeman, (2006) put it "a fluid play, an ever changing one that emerges from the processes of many agents, internal and external in the ever-changing complex world of the learner". Learners have their own personal goals and appraisal, but they are also motivated through their relationship with others and their environment which can have decisive impact on their motivation.

2-5-3-3Motivation as self-realization

The dominant model of language learning motivation at the present is Zoltan Dörnyei's **(2005)** L2 Motivational self-system. Drawing from the work of psychologists

such as Marku and Nurius (1986) who introduced the concept of possible selves, Dörnyei proposed a reconfiguration of L2 motivation as part of the individual self-system. A core element of this theory is that individuals strive between three types of possible selves:

- **The ideal self** that we would like very much to become. If our ideal self speaks a foreign language fluently, then we are intrinsically motivated to learn that foreign language. The desire to reduce the discrepancy between the actual self and the ideal self who speaks fluently the foreign language ignites the individual motivation to learn the target language.
- **The ought-to self:** this conception of self-perception complies with social expectations; that is how we should, and what we should fulfil to fit in socially. It also includes what we are afraid of becoming. It corresponds to extrinsic or instrumental motivation**.**
- **The L2 Learning experience:** for some language learners, the initial motivation to learn a language does not come from internally or externally generated self-image but from successful engagement with the actual language learning process. For example, they discover that they are good at it.

A core element of this theory is that of the ***future self***: the discrepancy between one's **actual self** at present and the **ideal or ought to self** in the future is seen as the essence of what motivates learners. The **ideal self** is the learners' own image of what they want to be**, the ought to self** is influenced by the social environment and refers to what learners believe they need to be. In other words: according to Dörneyei, learners are motivated by what they want to be or what they think or feel they should be.

The notion of the ideal-self and the ought to self is similar to the notion of learner's identities and imagined identities presented by Norton (2000- 2010). This concept was investigated by Benseddik (2020) on a group of Algerian law postgraduates who were found to be fully invested in their English classes due to the construction of imagined identities referred to as future identities in Dörneyei words "ideal selves" or future selves. The study also found that a focus on such imagined identities impacted positively on students of law English learning process, leading them to invest in the

practices of English and seeking membership in their future communities. According to Benseddik (2020) an understanding of students' motivation should necessarily involve an understanding of students assumed and imagined identities with reference to language learning. Such an understanding helps tutors to design classroom tasks that correspond to the imagined identities and its role in the prospected community.

2-5-4 Questions and tasks about motivation

1)Fill-in-the-blank with what you learned from the lecture

1. Gardner distinguishes between _____ motivation and _____ motivation.
2. The social-educational model focuses on attitudes toward the _____ language and its _____.
3. The Process Model includes three stages: _____, _____, and _____.
4. The pre-actional stage is related to _____ setting.
5. The post-actional stage involves _____ the execution of goals.
6. In the L2 Motivational Self-System, the _____ self represents what learners want to become.
7. The _____ self corresponds to external expectations and obligations.
8. The concept of possible selves was introduced by _____ and _____ (1986).
9. Benseddik (2020) found that learners were motivated by their _____ identities.
10. Understanding imagined identities helps teachers design tasks that match learners' future _____.

2)Write a 5–6 sentence paragraph comparing Gardner's social-educational model and Dörnyei's L2 Motivational Self-System. Explain how each model describes the reasons behind learning a foreign language.

3) Based on Dörnyei's self-realisation model, write a short paragraph describing:

- your *ideal L2 self*,
- your *ought-to L2 self*,
- How these two selves influence your motivation to study the language

4) Create a motivational timeline showing:

- A learning goal (pre-actional stage),
- Steps you will take to reach it (actional stage),
- your evaluation of progress (post-actional stage).

2-6 Anxiety

Motivation alone cannot lead to success in language learning because the process of learning may for some reasons be deterred by other affective factors like anxiety.

2-6-1 Definition and types of anxiety

Everyone, has at one-point experienced anxiety which is the sensation of fear or insecurity that often coincides with trying to do something innovative, unfamiliar to us, or decisive in our lives. Spielberger (1983 as cited in Brown, 2007, p.161) defined anxiety as "the subjective feeling of tension, apprehension, nervousness and worry associated with the arousal of the automatic nervous system".

Like self-esteem, anxiety can be experienced at different levels: trait anxiety, state anxiety, and situation specific anxiety. Drawing from general psychology, Scovel (1978 as cited in Ellis 2001, p. 480) defines trait anxiety as 'a more permanent predisposition to be anxious". It is related to character and personality type; some people tend to show anxiety across different situations more than others. State anxiety is apprehension that is experienced at a particular moment in time as a reaction to a particular situation (Spielberger, 1983). In fact, state anxiety is the outcome of trait and situation specific anxiety. Situation specific anxiety is the apprehension that is triggered by specific situations or events such as exams, interviews, public speaking, or even class participation.

2-6-2 Anxiety in Second Language Education

In the realm of second language education, situational anxiety has generated considerable research (see for example Horwitz &Young,1991 collection of papers on

anxiety in classroom settings). Most of these studies were either correlational studies conducted to find the effect of anxiety on language learning and vice-versa, or ethnographic reporting learners' stories through diary studies. The main questions addressed by these studies are related to causes of anxiety when learning a second language and the impact of anxiety on language acquisition (Brown, 2007).

Many researchers (Ganschow&Sparks,1996. Vogeley,1998; Oxford,1999; Horwitz, 2001) have also agreed that foreign language anxiety is specific and differ from other types of anxiety. For Allwright and Bailey (1991) the reason why language anxiety is specific and different from other types of anxiety is that "language teaching deprives learners of their normal means of communication and so of the ability to behave fully as normal people" p.173. Quite often learners repeat that when forced to speak or write the language they are learning; they represent themselves badly, showing only some of their real intelligence. What is more, speaking in a foreign language implies adopting a new way of looking at things and the world, which is in a sense a threat to a person's identity.

It might be argued that in classroom settings, the level of success does not reach the extent of identity threatening as in natural settings; however, other sorts of anxiety tend to appear in the classroom. In spite of the fact that the mother tongue is allowed to be used in most language classrooms of the world, foreign language classes remain more anxiety breeding than any other subjects. For example, in mathematics, a student may be wrong in solving an equation, but at least he is sure of saying the number correctly. By contrast, in language learning even if your answer is correct, the learner may be wrong in one way or another (mispronunciation, wrong vocabulary, or even faulty intonation or the mother tongue accent), and being wrong will certainly make you a subject to public humiliation, the thing that a lot of people are dreading (Allwright and Bailey, 1991). Below are diary entries of Algerian secondary school learners reported by Cherchalli (1988)

1 ‘when the teacher is giving explanation my heart beats strongly and I keep saying to myself: “it’s going to be my turn now”’.

2 ‘Today the teacher has insisted a lot on tenses. I had beads of sweats! Me and English tenses have never agreed!’

3 ‘ Today we had a quiz. It was very easy but I was so anxious about the second exercise that I could not work’

4 ‘I’ll never forget today and the shame that I felt. Everything started when the English teacher asked me to read a few sentences on the blackboard…..’

(cited in Allwright & Bailey,1991, p. 175)

These comments taken from language learners diaries might have not be perceived by the teacher. Yet a deep analysis of these entries suggests that the main sources of foreign language anxiety can be divided into three :

1 communication apprehension arising from learners’ inability to adequately express his thought

2 Fear of negative social evaluation, arising from individual’s need to make positive impression

3 test anxiety or apprehension over academic evaluation

2-6-2-1Debilative versus Facilitative Anxiety

Although most of these studies concluded that anxiety can have a negative impact on the process of language learning, anxiety might be good for language learners. Indeed, as mentioned in the humanistic approach to learning, an anxiety free environment will lead some learners to adopting a careless attitude towards learning. That is why the literature distinguish between two types of anxiety: debilitative anxiety and facilitative anxiety (Brown,2007). The notion of facilitative anxiety implies that some euphoric tension over completing a task can be beneficial in language learning. Without

such tension, the learner will be inclined to be a “wishy-washy”. In other words, day dreaming instead of providing the effort and the work it takes to accomplish a task or a mission. Bailey (1983) reported in her study of anxiety and competitiveness that she was swinging between debilitative and facilitative anxiety. Her self -analysis revealed that competitiveness and her will to outdo her peers caused her a tension to the extent of retreating and sometimes skipping classes. Meanwhile the tension felt because of the high competition pushed her to review extensively the material before the oral class. Bailey explained the positive effect of competitiveness by means of facilitative anxiety.

What follows is that the feeling of anxiety is inherent to any human being involved in the process of language learning; therefore, learners and teachers should recognise it in order to deal with it appropriately. Notably, teachers and learners need to distinguish between debilitating anxiety and facilitative anxiety to extinguish the former and allow the latter ignites in them the will of performing and accomplishing their tasks.

2-6-2-2 Causes of Second Language Anxiety

In studies on anxiety, the chicken-or- egg dilemma appears too. Put differently does anxiety cause poor performance in language learning, or does poor performance lead to anxiety? Sparks and Ganschow (2001) have maintained that language anxiety was the consequence of their language learning difficulties; they suggested the Linguistic Coding Deficit Hypothesis which is predicted to be the difficulties students have with language codes (phonological, syntactic, lexical, and semantic features). Others like Horwitz (2000, 2001; McIntyre, 1995) rejected the LDCH by raising some objection to the validity of the research supporting it. They also observe that anxiety is connected to all kinds of learning. Furthermore, with over one-third of all language learners reporting some kinds of anxiety, it cannot all be related to LCDH, knowing that even proficient learners show some level of anxiety across different circumstances (Brown, 2007).

Although controversial concerning the causes and effect of anxiety, in the last two decades, studies have helped to better understand the phenomenon of anxiety. For example, in a study conducted by Bailey, Onwuegbuzie, and Daley (2000) anxiety was

found to correlate with low-perceived self-worth, competence and intelligence. Gregersen and Horwitz (2002) found that anxiety is linked to perfectionism; put differently, learners who set unrealistic objectives are likely to feel more anxious than others. Kitano (2001) found that Japanese college students who had greater fear of social evaluation and perceive themselves as having lower potential than others had higher level of anxiety. In sum all of these studies support the assertion that attribution theory and self-efficacy are linked to every aspect of affectivity.

In the Algerian context, Al-Qadri et al. (2023) examine the connection between multilingualism, proficiency, and foreign language anxiety among 471 undergraduate Algerian students from different majors. They found that the participants generally had moderate anxiety levels. Communicative anxiety emerged as the most common form of anxiety, followed by fear of failure and negative experiences. Also, the study shows that the less anxiety a student experienced, the more advanced their English level was. However, multilingualism seems to have an effect on anxiety because Arab students were more anxious than Amazigh students, thus, speaking more than two languages can have a positive effect on the level of anxiety felt. There were no significant differences between the students' majors and anxiety levels.

To conclude, anxiety is an affective factor that can have either harmful or helpful effect on the language acquisition process. Undoubtedly, being deprived from the linguistic tools, that help to communicate and reflect thoughts, can be an immense source of anxiety. The level of this language learning anxiety may be at hights in classroom settings due to competition and fear of evaluation. For all of these reasons, language learning anxiety remain a fertile field of research that is likely to cast light on some gloomy areas of the language learner psychic which is intrinsically linked to its cognitive ability.

2.6.3 Tasks and questions about anxiety

1) In a short paragrph, explain the three types of anxiety (trait, state, and situation-specific) illustrate with examples from your experience as a language learner

2) Choose one of the learner diary excerpts reported by Cherchalli (1988) in 2-6-2 above. Write a short paragraph explaining:

- What type of anxiety the student experienced,
- What triggered it,
- Why the classroom environment might have increased it.

3)Task 1:

Imagine a student who is excellent at grammar but freezes during oral tasks. Explain, using ideas from the text, what types of anxiety they might suffer from and what could be causing it.

Task 5: Classroom Solutions

Design a small classroom strategy (8–10 lines) that a teacher could use to reduce communication apprehension and fear of negative evaluation.

2-7 Learners Beliefs

How learners define themselves and how they think about the language learning has attracted a lot of attention from researchers in second language education. In addition to self-concept which is purely a psychological concept, learners' beliefs about language learning is a concept that examines what learners hold to be true about language learning and the impact of these beliefs on their language learning journey. Contrary to the self-concept system which may need time and therapy to be changed or adapted, learners' beliefs can be altered or adapted throughout the language learning process. This flexibility of learners' beliefs lies in their definition.

2-7-1 Definition of learners Beliefs

Researchers have defined the construct of 'beliefs' in different ways. Some focused on the cognitive character of beliefs like Kalaja (1995) and Wenden, (1987); others highlighted the social and cultural situatedness of beliefs (Barcelos, 2003;

Cortazzi & Jin, 1996). To distinguish beliefs about language learning (BLL) from other types of beliefs, Bernat and Gvoz-denko (2005 as cited in Yasmin, 2021, p.26) presented the following comprehensive definition:

Second or foreign language students may hold strong beliefs about the nature of the language under study, its difficulty, the process of its acquisition, the success of certain learning strategies, the existence of aptitude, their own expectations about achievement and teaching methodologies.

Put differently, learners' beliefs about language learning are the ideas and convictions they hold about the nature of language, the process of language acquisition, and their own capabilities as language learners. These beliefs can significantly influence their motivation, engagement, and ultimately, their success in language learning.

A myriad of factors can influence and shape language learning beliefs; these can include past learning experience, cultural background, and social and political context of the language to be learned (Yasmin, 2021). Despite the established view on their crucial role in shaping the language learning process, very little is known about their direct effect on language learning (Horwitz, 1987). To understand the relationship between learners' beliefs and the process of language learning acquisition, researchers distinguish between several types of beliefs.

2-7-2Beliefs versus Knowledge (degree of certainty)

Not all beliefs can be tested and become knowledge. Beliefs can be entrenched to a learner's system that it can be incontrovertible facts. These are the beliefs that are hold so deeply; therefore, they are less susceptible to change. On the other hand, beliefs that are held with less certainty are considered opinions and views which might be adapted, altered or changed. Marrion et al (2015) illustrate the difference by presenting the example of two language learners. One of them hold strongly the belief that improving target language pronunciation at an advanced age is impossible and another learner who has the same belief but not with the same degree of conviction. The obvious consequence of these two beliefs will be that the first learner will be unreceptive to the

teacher's techniques and methods to improve pronunciation while the other will be more receptive to pronunciation lessons and techniques.

Wenden(1998, 1999) was among the first who addressed the distinction between knowledge and beliefs. At first, Wenden (1998) equated beliefs with the metacognitive knowledge. Later on, Wenden (1999) contends that beliefs are a subset of the metacognitive knowledge and that beliefs are held more tightly and that they are deeply entrenched to learners' value system. In his own words: " Beliefs are viewed as individual subjective understandings, idiosyncratic truths, which are often value related and characterized by a commitment not present in knowledge" (p. 517). In contrast, he saw knowledge as "factual, objective information acquired through formal learning" (p. 517).

Put differently, BLL can be acquired through formal instruction or experience and can be checked, adapted, altered, or rejected; these can be viewed as set of knowledge. Conversely, some beliefs have been formed throughout a long process and are deeply linked to a learner's system of value; as a result, they are less susceptible to change or adaptation.

2-7-3Facilitative versus debilitative beliefs

As demonstrated earlier, beliefs about language learning can in some cases hinders the language learning process. However, there cannot be a clearcut distinction between the facilitative and the debilitative beliefs. The classification of the belief as "*detrimental"* or *"enabling"*(Horwitz, 1988) depends on criteria related to the learner, the learning context. For example, beliefs such as : "to speak English well, someone need to live in an English speaking country" might be debilitative and facilitative at the same time. Debilitative in a classroom context since the learner believes that classroom instruction is not effective. Facilitative in an immersive learning context as the learner will be willing to interact and improve his language skills (Williams et al. 2015)

2-7-4 Epistemological beliefs and language learning belief

The epistemological beliefs consist of the beliefs we have about the nature of knowledge and learning. What knowledge is and how it is acquired are philosophical questions that have been debated throughout the history. Therefore, beliefs about knowledge and learning are likely to be influenced by the predominant theory about knowledge and learning of every historical era. For example, when the epistemological theory followed the behaviourists' paradigm, knowledge was perceived in quantity to be imparted in a unidirectional way from the detainer of knowledge (the teacher) to the learner. For long time, learning including learning a second or a foreign language meant acquiring a set of rules and rote learning. Although the theoretical views about the nature of knowledge and learning have changed , we may find learners with beliefs similar to the behaviourists' perceptions. Such learners may misunderstand or misconceive a teacher with a constructivist's view of knowledge and learning.

It should be noted, however, that the epistemological beliefs may vary across learning domains and subjects. The way a student approach the study of mathematics or literature may be different from the way he or she may approach the study of a foreign language. Depending on this learner perception of language and language learning, he may be self-reliant seeking opportunities to practice the language outside the classroom. By contrast, the same learner may exhibit great dependency on the teacher to explain mathematical equations or literary critical views. Mori (1999) was among the first studies that analysed the correlation between the epistemological beliefs and the BLLs. Using ashorter version of Schommer's (1995) questionnaire about epistemological beliefs and a 92 items questionnaire to study the language learning beliefs of 187 Japanese students studying in two American universities. The findings of this study show that there was no significant correlation between both types of learning beliefs i.e. between students' epistemological beliefs and their BLLs. Such a study suggests that language learning beliefs differ and may not be influenced by other types of epistemological beliefs.

2-7-5 Explicit and implicit beliefs

Beliefs differ also according to the degree learners are aware of them. There are set of beliefs that learners are aware of and can articulate; these are the **explicit beliefs**. For example, a student may believe in the importance of practice and interaction for language learning. This student is able to deliberately articulate this belief both verbally and in action by seizing every opportunity to interact with the teacher or peers inside and outside the classroom (Benyoucef, 2024).

On the other hand, there are some beliefs that students are unaware of and cannot articulate; they are called **implicit beliefs.** Unnoticed, these beliefs can play a far-reaching effect on students' learning process. Education psychologists such as Dwek (1999, 2006 as cited in Williams et al. 2015, p.68-69) attempted to explore the impact of implicit beliefs on the process of learning. She distinguishes between two types of implicit beliefs: an **entity theory** and an **incremental theory**. An entity theory holder believes that human learning traits such as intelligence and talent are innate and fixed at birth; they are unlikely to change. The incremental theory holder, in contrast, believes in human abilities to learn and change. Williams et al. (2015) suggest **the mindset** terminology to refer to these implicit beliefs. While the fixed mindset (entity theorists) plays a detrimental role in learning, a growth mindset would have a facilitative effect in the learning process. Learners with growth mindset, generally, have faith on the power of effort for improving skills and competence.

To come back to language learning, a learner with fixed mindset may believe that language learning comes with an innate talent; therefore, success in language learning is dependent on this endowed capacity rather than effort and practice. Undoubtedly, such beliefs, which are not necessarily salient, play a detrimental role in the learning process. Besides talent, mindset is linked to other aspects of learning such as personality, motivation, and goal-setting. For instance, while a person with a fixed mindset would set unchallenging goals in order not to be at risk of unveiling the weakness of an innate talent, a person with a growth mindset would see in challenging goals an opportunity for learning and growth (Williams et al., 2015).

In a study conducted in five Algerian universities and involved 489 students, Benyoucef (2024) explored Algerian students non-major of English beliefs about English learning and how these beliefs correlate with their motivation and investment in learning. The findings suggest that these students hold different beliefs about language learning which stem from their socio-cultural background, their past language learning experience, and their future aspiration. For example, negative past experience with grammar and pronunciation reduces motivation and increases anxiety. It was also found that some Algerian students have a fixed mindset about language learning and believe that some people are born with an innate talent to learn languages. Most importantly, the study revealed that most students hold positive beliefs about the perspectives that English learning opens for global opportunities, yet they feel limited by the scarce authentic use opportunities in Algeria. They also reported their disappointment to the mismatch between their global aspiration and classroom practices

In addition to the multifaceted aspect of learner beliefs, the complexity of its character increases when it comes into interplay with teachers' own beliefs in the classroom.

2-7-6 Beliefs in the classroom

As human beings, teachers hold several sets of beliefs about effective teaching, the process of language learning, learner role and teacher role in the classroom. More often than not the teacher's beliefs system can come at odd with learner's own beliefs system, which can have an impact on the effective management of the classroom and on teacher-learner relationship. Therefore, it is crucial for teachers to articulate their hidden beliefs about teaching and the process of learning since their behaviour and actions in the classroom are the reflection of these hidden beliefs. Although most teachers receive a training on effective teaching, and they may be aware of the most common and up to date theoretical framework on teaching and classroom management, the practice of these in each teacher's classroom remain personal and inspired by their own beliefs about effective teaching and classroom management.

2-7-6-1 Teachers beliefs about learners

Teachers may have different beliefs or a combination of beliefs about their learners. According to Meighan and Meighan (1990 as cited in Williams & Burden,1997, p.57) teachers construe their learners in seven ways that reflect their views of the world and that have an impact on their teaching practices. These constructs are conceptualized in a form of a continuum that reflects the degree of teacher-learner power relationship perceived by the teacher. Thus, learners are conceived as: 1) resisters, 2) receptacles, 3) raw material, 4) clients, 5) partners, 6) individual explorers, 7) democratic explorers. As their names suggest, the first three constructs are teacher-dominated whereas the last three last can be said learner-centred constructs.

The belief in a teacher dominated role relegate learners to a passive role. For example, teachers who conceive their learners as resistant consider that learners come to class with no will to learn; as a result, instruction should be forced through methods of compulsion and punishment. If teachers view their learners as receptacles, they will adopt "the jug and the mugs" theory wherein teachers transmit knowledge through instructions to learners with different aptitudes. The teachers with the belief that learners are raw materials approach teaching as a fully influential and inspiring process that impact learners in every aspect of their learning and personality. Although Williams and Burden (1997) warn from the manipulative side of this conception, as a teacher, I have heard many times from my students that they were influenced by remarkable teachers to pursue the study of the English language.

On the other hand, teachers' beliefs that learners are central in the teaching process make them treat students as clients, partners, individual explorers or democratic explorers. As clients, the teacher-learner relationship is altered from a relation of power to give and take relationship whereby learners' needs are identified and satisfied in the teaching operation. This conception can be found mainly in private schools. The alternative belief in public schools is the view of learners as partners who could willingly share in decision making regarding the syllabus and the classroom lesson plan and objectives. The conception of learners as individual explorers and as democratic

explorers entails reducing the role of the teacher to that of a facilitator whose aim is to provide learning opportunities rather than satisfying learning needs. As such learners in this view are central in learning and teaching.

2-7-6-2 Teachers' Beliefs about teaching and Learning

Teachers' beliefs or conception about learning and teaching has a great influence on the way they behave as teachers in their classrooms. These conceptions tend to be formed in early childhood; Weinstein (1989 as cited in Williams and burden, 1997) assume that beliefs about teaching seem to be well established by the time students reach college. They are the sum of a teacher's individual philosophy of teaching developed from their learning and teaching experience and their epistemological beliefs (Richards, 1996).

They are classified into two major trends: The traditional conception of learning and the constructivist conception (Bendehmane,2023). Obviously, teachers with the traditional conception of teaching and learning applies teacher-centred approaches and techniques to teaching while teachers with constructivist belief of teaching and learning tend to apply teaching approaches that involve learners' active participation in the classroom and the learning process as a whole.

In an exploratory study which involved ten secondary-school teachers, Bendahmane (2023) found that most Algerian novice teachers had a traditional conception of teaching and learning. She observed: "They believed that it is very important to keep students confined to the textbooks and keep quiet following the teacher's instruction because learning takes place through drill and practice. Teachers transmitted information by lecturing" (Bendahmane, 2023, p.359). Her results showed that these teaching approaches (lecturing and information transfer) correlate with teachers' conceptions about learning and teaching.

The reason behind such traditional conceptions and approaches to teaching lies in the fact that most of the participants were not experienced teachers, they didn't have any professional training, and the in-service training was not enough to make them

change their deeply established beliefs about effective teaching and learning. In this sense, Guilfoyle et al. (1995 cited in Bendahmane, 2023, p.361) observed "pre-service teachers hold mature beliefs about teaching and learning that tend to be more congruent with their past experiences than with the views we are asking them to consider and they most likely to maintain these beliefs".

This study reveals the crucial role played by the psychological dimension and notably, the teachers beliefs' system in the efficiency of any reform in education. Although the Algerian schools advocate the CBA method which emphasises learner's critical thinking and experiential learning in their textbooks, most teachers do not implement this learner-centred method due to their deep-seated beliefs about effective teaching, the role of the teacher and the learner. Hence any reform should target the hidden beliefs of the teachers who are in charge of the day-to-day implementation of the recommended reforms; otherwise, any attempt of modernisation and reform will be in vain.

To conclude, as for any affective factor, learner beliefs is such a complex factor that plays a crucial role in the learning process. Beliefs about language learning, about ourselves as learners, and about teachers' roles can be detrimental or facilitative for language learning. Some beliefs are entrenched into our value system and may not be changed; others are acquired throughout a process and may be adapted or altered. The complexity intensifies when learners' beliefs come into interplay with the teacher's own beliefs system. Often, misunderstanding and confusion in the classroom are created due to the mismatch between teacher's beliefs and learners' beliefs. Unveiling the BLL for both teachers and learners is likely to clarify the ambiguities created throughout the learning process by the hidden character of beliefs. Undoubtedly, beliefs open a wide door to investigation and research due to its inherence to the socio-cultural character of different societies and communities.

2-7-7 Questions and Tasks about Learners Beliefs

1. How do researchers differ in their definitions of beliefs about language learning (BLL)?

2. According to Bernat and Gvozdenko (2005), what areas can learners' beliefs about language learning cover?
3. What factors shape learners' beliefs about language learning?
4. Why does Horwitz (1987) argue that the direct effect of beliefs on language learning is still unclear?

5 Explain the difference between beliefs and knowledge in terms of degree of certainty.

Task 1:

Read the following beliefs and write next each one if it is facilitative, debilitative, fixed, growth, knowledge, implicit, explicit:

- "Grammar rules must be memorized before speaking."
- "Anyone can improve their pronunciation with enough practice."
- "Only people with talent can learn languages well."

Task 2: Reflective Task

- Which belief about language learning do you personally hold most strongly?
- Do you think it is facilitative or debilitative in your context? Why?

Concluding summary of the Second semester lectures

As we reach the end of these lectures on learner differences or ID, it becomes more and more evident that language learning is a complex interplay of cognitive and affective factors. Cognitive differences, such as learning styles and strategies, influence how we process and retain information. However, affective factors, such as self-esteem, motivation, anxiety, and willingness to communicate, significantly impact our overall language learning experience.

A balanced approach that acknowledges both cognitive and affective dimensions is crucial. By understanding our unique learning styles and strategies, we can tailor our learning experiences to maximize our potential. Simultaneously, nurturing positive emotions like self-esteem and motivation, while managing anxiety and cultivating a willingness to communicate, can create a conducive environment for language acquisition.

Ultimately, successful language learning is a holistic endeavour. By embracing both cognitive and affective factors, we can unlock our full language learning potential and achieve our linguistic goals.

The Second semester Exam questions

1. **Which of the following is NOT a common language learning style?**
   - a) Visual
   - b) Auditory
   - c) Kinesthetic
   - d) Telepathic
2. **A visual learner would benefit most from:**
   - a) Listening to language podcasts
   - b) Using flashcards and diagrams
   - c) Practicing language through physical activities
   - d) Engaging in language exchange conversations
3. **An auditory learner would likely prefer:**
   - a) Watching language learning videos
   - b) Reading language textbooks
   - c) Listening to language music and songs
   - d) Writing language journal entries
4. **A kinesthetic learner might find it helpful to:**
   - a) Create mind maps and concept diagrams
   - b) Use language learning apps with interactive exercises
   - c) Role-play different language scenarios
   - d) Listen to language audiobooks

Task 2: Language Learning Strategies

Answer directly

1. What is the difference between a cognitive strategy and a metacognitive strategy?
2. Describe two effective memory strategies for language learning.
3. Explain the concept of interlanguage and how it relates to language learning.
4. How can learners **use self-evaluation to improve their language learning?**

Essay Questions:

1. Discuss the role of motivation in language learning. How can learners maintain motivation throughout the learning process?
2. Examine the impact of anxiety on language learning. What strategies can learners use to reduce language anxiety and improve their performance**?**

General Conclusion

In the end of this comprehensive exploration of cognitive psychology and the psychology of education, it is evident that a deep understanding of human learning and individual differences is essential for effective teaching and learning. Through our journey, we have delved into the intricate workings of the human mind, the diverse theories of learning, and the multifaceted nature of learners.

By understanding the cognitive processes involved in learning, we can develop effective strategies to enhance our own learning and the learning of our students. From the principles of behaviorism to the complexities of cognitive and constructivist theories, we have gained valuable insights into how people learn.

Moreover, by recognizing the diverse range of individual differences, we can create inclusive and supportive learning environments that cater to the needs of all learners. By understanding the impact of factors such as learning styles, motivation, and self-esteem, we can tailor our teaching approaches to maximize student engagement and achievement.

As future educators and language professionals, it is imperative to continue our exploration of cognitive psychology and the psychology of education. By staying informed about the latest research and developments in these fields, we can remain at the forefront of effective teaching and learning practices.

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