People's Democratic Republic of Algeria
Ministry of Higher Education and Scientific Research
Abou Bekr Belkaid University- Tlemcen-
Faculty of Faculty of Letters and Languages
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Courses in Psycholinguistics for Master one students in language sciences

Proposed by

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Contents

Description of the Course

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Description of the Course

Psycholinguistics or the psychology of language is the bridge between linguistics and psychology. It studies the mental mechanisms that make language acquired, processed, understood and produced. This course has been adapted to the needs of the master 'language Sciences' which focuses on the various aspects of the process of language acquisition and language learning. In fact, psycholinguistics completes the master's objectives and focuses on the human mental process as an important element in the acquisition vs learning process. This may be achieved by making learners aware about their cognitive and metacognitive abilities; the way they are developed and used. It highlights the steps through which knowledge is acquired and processed in order to be stored.

Language acquisition is described by cognitivists as the greatest intellectual achievement in the whole life of the human being. It seems an easy task since when an infant is born; his psychomotor capacities and linguistic performance develop progressively and spontaneously. In this course, students are introduced to major concepts related to cognitive sciences in order to understand the process of language acquisition and learning. Because of the specificities of the course, being scientific and very technical needs the introduction of psychological, cognitive, medical and mainly neurological concepts, adding to, neurolinguistics.

As matter of fact, the content of the course has been simplified and adapted to the master one students who come mainly from literary streams. Syntheses of all these concepts are introduced progressively to raise the interest of learners in psycholinguistics and open their perspectives for their future investigations. Indeed, the notions taught about cognitive sciences, psychology and psycholinguistics

make learner able to understand the way their brain vs mind function when being in a given situation.

To achieve the learning aims, a teaching methodology has been tailored according to the aforementioned objectives. Students are guided so as to actively participate in understanding and acquiring the new content of the course presented trough pictures and power points' slides. It focuses mainly on oral explanations and answering questions.

Psycholinguistics is taught in the first and the second semesters. once a week for a 3 hours session. It is made of 12 lectures. Evaluation is based on the result obtained in the final exam at the end of each semester.

The course in question raises the following issues:
- How is language acquired?
- Where does is live?
- How is language acquisition achieved?
- What are the mental processes involved?
- Is intelligence the unique mental capacity we have?
- What is the difference between cognition, intelligence and metacognition?
- In what way do they develop each other?
- How do cognitive and metacognitive processes shape acquisition?
- How do cognitive and metacognitive processes shape learning?
- What is the role of the social background in the mental development of the child?

Lecture one: Introduction to Psycholinguistics

Objectives of the lecture: By the end of the lecture, the students should be able to:
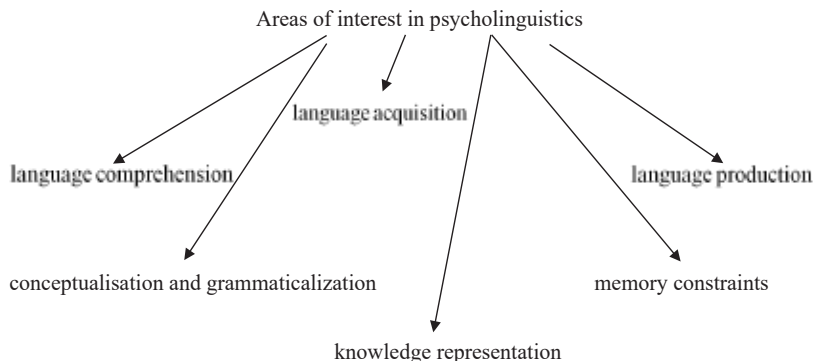- To know what is psycholinguistics
- The field of studies of psycholinguistics

1. Definitions
Psycholinguistics is the bridge between Linguistics and psychology as shown in the following definitions:

- Psycholinguistics is the study of the mental faculties involved in the perception, production, and acquisition of language.

- "Psycholinguistics is the study of the mental mechanisms that make it possible for people to use language. It is a scientific discipline whose goal is a coherent theory of the way in which language is produced and understood." (Alan Garnham, *Psycholinguistics: Central Topics*. Psychology Press, 1985)

- Psycholinguists study how words meaning, sentence meaning, and discourse meaning are computed and represented in the mind. They study how complex words and sentences are composed in speech and how they are broken down into their constituents in the acts of listening and reading. In short, psycholinguists seek to understand how language is done.

- Psycholinguistics or psychology of language is the study of the psychological and neurobiological factors that enable humans to acquire, use, and understand language.

2. Areas of Interest in Psycholinguistics

Areas of interest in psycholinguistics

language acquisition

language comprehension

language production

conceptualisation and grammaticalization

memory constraints

knowledge representation

3. Branches and Goals of Psycholinguistics

- Language Processing

What happens in the human mind when we speak/read/write/ listen?

What are the processes and mechanisms underlying this complex activity?

- Language Acquisition

How do children learn to speak?

How do they acquire their mother tongue?

- Neurolinguistics

How is language represented in the human brain?

3.1 Language Processing

Two main activities are involved:

- Speech production (what is going on from thought to output, to the actual production of a sound wave)
- Comprehension (a complementary activity to speech production) It is not just perception, it is also how do we interpret what is being said to us, how do we analyse the linguistic units (words)

It is really exciting to find out about the phases of these activities that in reality might last for less than a second but are extremely complex. Perhaps the most complex activity of human cognition!

3.2 Language Acquisition

We're dealing with children!

Despite their limited mental abilities, they acquire a language within just a few years of their lives. They're also confronted with input that is "not complete" in a sense...? There are three central issues:

- Acquisition studies: how to study young children, they cannot answer our questions at this stage!
- Strategies applied by children: i.e. over generalizing morphological aspects in what they produce.
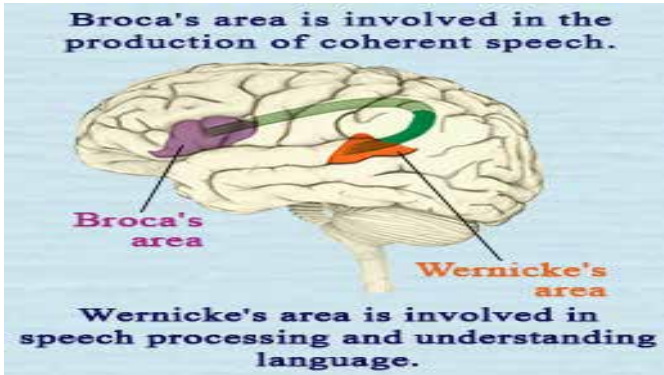- Phases.

3.3. Neurolinguistics

The human brain is made of two lobes: the right and the left. Each one of them is responsible of particular functions. Medical imagery has shown that language zones are found in the left hemisphere of the brain as indicated in the picture bellow:

The following pictures show the various areas of the brain in charge of language:
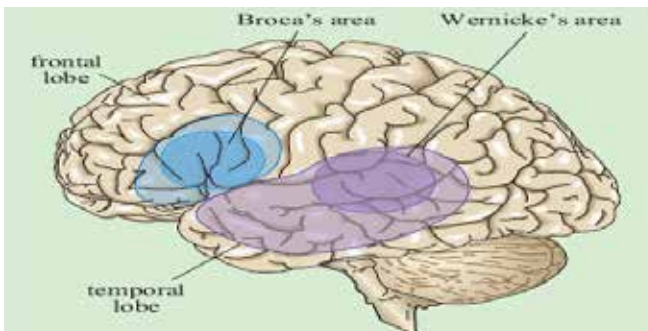
The picture above shows the two areas responsible of language. Each one of them has its own characteristics:

Broca's area is involved in the production of coherent speech.

Broca's area

Wernicke's area

Wernicke's area is involved in speech processing and understanding language.

Broca's Area vs. Wernicke's Area

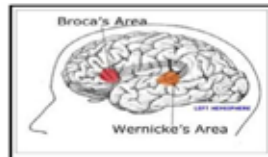**Broca's Area**

— Responsible for the precise control of the mouth and larynx muscles

— Seat of grammar, comprehension, and production

Wernicke's Area
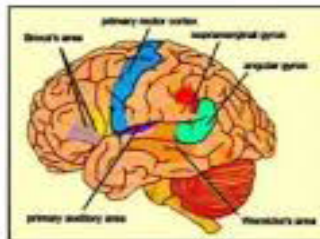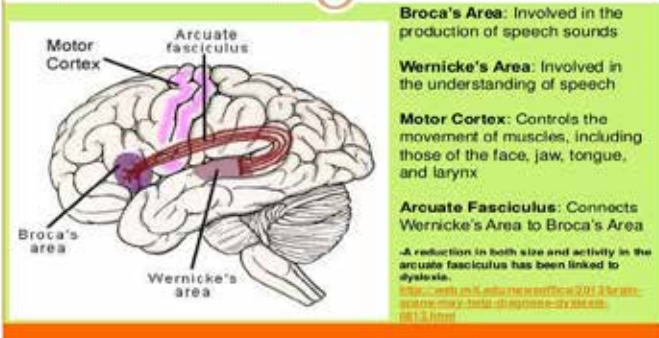
— Home of meaning

(Hoff, 1997 & Bardies, 1999)

Wernicke's Area

- Location
- Left Temporal lobe
- Major function:
- It is important for the comprehension of speech sounds and is considered to be the language comprehension, centre.

Left Hemisphere: Parts of the brain that control speech

Broca's Area: Involved in the production of speech sounds

Wernicke's Area: Involved in the understanding of speech

Motor Cortex: Controls the movement of muscles, including those of the face, jaw, tongue, and larynx

Arcuate Fasciculus: Connects Wernicke's Area to Broca's Area

A reduction in both size and activity in the arcuate fasciculus has been linked to dyslexia.
http://web.mit.edu/newsoffice/2012/brain-scans-may-help-diagnose-dyslexia-0813.html

The next picture shows the acoustic and neurological relation between the speaker and the listener. Words go from the mouth of the speaker through air- waves to the ears of the listener where they are perceived thanks to the drums and transformed to an electric signal by the auditory cortex to reach the Wernick area. At this area of the brain called the 'home of meanings', the listener understands the message and ideas where they are given shapes through meanings and concepts. Everything goes to the Broca area where the sentence structure is determined and the articulators are activated to speak.
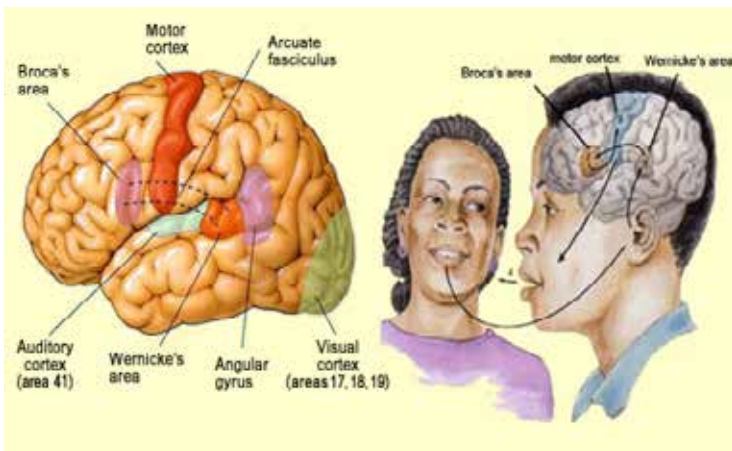
Aphasia

- <u>aphasia</u> – any language deficit from lesions in same hemisphere (usually left) containing the Wernicke and Broca areas
- **nonfluent** (Broca) **aphasia**
    - lesion in Broca area
    - slow speech, difficulty in choosing words, using words that only approximate the correct word
- **fluent** (Wernicke) **aphasia**
    - lesion in Wernicke area
    - speech normal and excessive, but uses jargon that makes little sense
    - cannot comprehend written and spoken words
- **anomic aphasia**
    - can speak normally and understand speech, but cannot identify written words or pictures
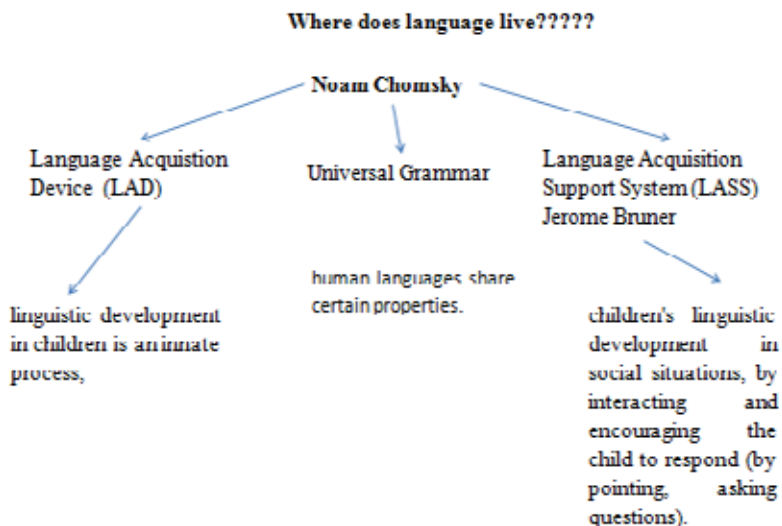
14-75

Lecture 2   **Where does language live????**

Objectives of the lecture: By the end of the lecture, the students should be able to:
- To know the various theories about language acquisition
- To understand the way language function in relation to the social background, genes, intelligence

1. Noam Chomsky

Cognitive and neurosciences have witnessed a very wide range of interest. In order to understand the way communication takes place and language functions, scholars started using the medical imagery. This last is supposed to shed more light on language from all perspectives.

Where does language live?????

Noam Chomsky

Language Acquistion Device (LAD)

Universal Grammar

Language Acquisition Support System (LASS)
Jerome Bruner

linguistic development in children is an innate process,

human languages share certain properties.

children's linguistic development in social situations, by interacting and encouraging the child to respond (by pointing, asking questions).

…believes the structure of language is determined by an innate, autonomous formal system of rules. This formal system of rules, called universal grammar (UG), is inherent within the human brain at birth and is largely devoid of any association with meaning. This

UG is also independent of other human cognitive faculties, i.e., it operates on its own within the brain, independent of any other non-linguistic cognitive processes. (JohnQPublik, 2007: cognitive_linguistics.txt)

- The cognitivists believe that the grammatical structures of language are directly associated with the way people conceptualize (i.e., think about and understand) any given situation in the world. Syntax, morphology, even phonology are conceptual in nature, i.e., they are merely input and output of those cognitive processes within the human mind that govern speaking and understanding. This idea is generally encapsulated in a phrase coined by Ronald Langacker and often repeated by cognitive linguists: grammar is conceptualization. (JohnQPublik, 2007: cognitive_linguistics.txt)

saying that children in general are "too good" at learning language so quickly, i.e., they don't get exposed to a sufficiently large corpus of language stimuli/data to work with to figure out so quickly how their native language works, therefore they must have an innate faculty (the UG) to subconsciously tell them about things like syntactic relations (e.g., case morphology), tenses, aspect, clause structure, grammatical transformations such as active-into-passive voice, etc.

(JohnQPublik, 2007: cognitive_linguistics.txt)

- Language acquisition is a tightly constrained process that is biologically predisposed to follow certain paths; it is, in fact, even more constrained than was previously thought.
- Basic knowledge of language is acquired very early, in the first two years of life, much of it probably before the emergence of production.

- Much acquisition is perceptual, and not dependent on direct negative evidence.

2. Abdou Elimam

- Language acquisition is a subconscious process. It goes, according to Elimam (2006), through two main steps that of coding and decoding data. That is to say, the input is decoded in what he named "the black box" in order to be understood and an output is shaped as a response of the stimulus. This process is clearly demonstrated in this figure elaborated by (Elimam, 2006: 29):

INPUT ⟼ Black Box ⟼ OUTPUT
Decoding

- Elimam believed that the Black Box is an invisible behaviour that takes place in our brain and allows both of the speaker and the listener to understand and produce language for the linguistic heritage is stored there. Adding to this, he declared that around 18 months the child is largely able to convey a message, i.e. to communicate even though he does master the syntax used by adults in their sentences. In fact, his utterances are supported by gestures and face expressions used to clarify more the message that makes Elimam concluding that the child uses both a visible and an invisible grammar at the same time. These two forms are also referred to as internal and external grammar.

- Elimam considered that the production of a meaning is at first shaped in a process of internal language and then given an accepted morpho-syntactic form understood by the community he lives in. Internal grammar is part of the black box and is responsible for materializing language before its production. Meanwhile the external grammar shapes the speech in its form

by using different supports like gestures, sounds, symbols, pitch, and intonation as (Elimam, 2006: 32) shown below
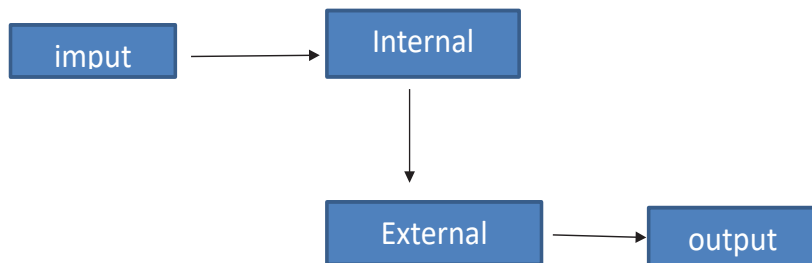
3. Steven Pinker

•   Before language production, many processes take place quickly and unconsciously. When describing this phenomenon, Pinker (1996) named the 'mentalese', he declared that the mental image in ones' mind is shaped in words when speaking as it is stated bellow:

Many contemporary novelists, like Joan Didon, report that their acts of creation begin not with any notion of a character or a plot but with vivid mental pictures that dictate their choice of words… People do not think in English or Chinese or Apache; they think in language of thought. This language of thought probably looks a bit like all these languages; presumably it has symbols for concepts, and arrangements of symbols that correspond to who did what to whom,… (Pinker, 1996: 70-81)

•   Pinker over-generalised the mental language. (Pinker, 1996: 82) defined the **mentalese** as "*knowing a language is knowing how to translate mentalese into strings of words and vice versa*". As an illustration, if babies have no mentalese to translate to and from English, it would neither possible to learn English nor to produce it. In order to give more details about this capacity that determines our language understanding and production, (Pinker,

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1996: 82) proposed the following explanations:

1. Since mental life goes on independently of particular languages, concepts of freedom and equality will be thinkable even if they are nameless.
2. Since there are far more concepts than there are words, and listeners must always charitably fill what the speaker leaves unsaid, existing words will quickly gain new senses, perhaps even regain their original senses.
3. Since children are not content to reproduce any old input from adults but create a complex grammar that can go beyond it.

….we can estimate that in average six year old commands about 13,000 words….. The brain seems to be reserving an especially capacious storage space and especially rigid transcribing mechanism for the mental dictionary. Indeed, naturalistic studies by the psychologist Susan Carely have shown that if you casually slip a new colour word like 'olive' into a conversation with three year old, the child will probably remember something about it five weeks later. (Pinker, 1996: 151)

• In the light of all arguments given above, it is clear that mentalese is not a language made of words and grammar; it is a pure thinking that is given a shape through words stored in the brain. In addition to this, the combination of these words is achieved thanks to the grammar previously acquired from the social background and used to fit an appropriate social behaviour.

4. **Genetic Endowment**

In order to understand the way genes influence language acquisition, experiments were undertaken on chimpanzees since they share 98% of their genes with man. They studied the behaviour of two animals

and analysed the extent of their linguistic performance through years.

4.1 Washoe

The first attempt to teach non verbal coding of a natural language was undertaken by Gardner and Gardner (1969). The two scientists brought up a one year old female chimpanzee Washoe in an American Sign Language speakers community. This signing system relies mainly on word sign rather than a sign alphabet. Washoe was treated like a child and was surrounded by human being who used signs to communicate with each other and with the animal as it is summarized (Jay, 2002: 431) when quoting the Gardeners:

Washoe has been exposed to a wide variety of activities and objects together with their appropriate signs, in the hope that she would come to associate the signs with their referents and later make the signs herself. (Gardner et al, 1969:667)

By the age of three, Washoe was in complete control of 35 signs. She was not only able to understand them but also to use them spontaneously in appropriate circumstances. Washoe used the word 'flower' to refer to various kinds of flowers in real life situation as well as in a picture. It was noticed too that by the age of two years and half, the animal's language was enough developed since it became more than able to use separate words when communicating through sign sequences. For instance "please give food" or "hurry open". This does not mean that it has acquired the capacity of making sentences that are syntactically and semantically correct

4.2 Sara

Presmark (1983) used another method in teaching language to a female chimpanzee named Sara, as described in Jay (2002), and opposed the way followed by the Gardner's. Presmark's used the

behaviourist (11) approach based on the stimulus, response, reinforcement when teaching Sara language.

After a period of time, it was noticed that the animal became able to use language but, it was impossible to state that Sara had the capacity to use syntax the way human beings do. It was able to distinguish in use between: "Randy gives Sara an apple" and "Sara gives Randy an apple" and was even able to substitute apple to banana. Yet, her linguistic use remained very limited.

Lenneberg et al, (1964) examined 84 mongoloids and feeble minded children and tried to compare their language development to that of normal children. It was noticed that the results of the sentence test repetition of (24-30) months of normal children was similar to that of the mongoloids of the same age. That is to say, the sort of correlation between motor and linguistic development is almost the same for both normal children and mongoloids and the difference between their linguistic performances were noticed at a more advanced age.

4.3 Mongoloids

Adding to this others studies concerned people genetically different like Mongoloids who have 47 chromosomes as compared to 16 for man. Lenneberg et al, (1964) examined 84 mongoloids and feeble minded children and tried to compare their language development to that of normal children. It was noticed that the results of the sentence test repetition of (24-30) months of normal children was similar to that of the mongoloids of the same age. That is to say, the sort of correlation between motor and linguistic development is almost the same for both normal children and mongoloids and the difference between their linguistic performances were noticed at a more advanced age.

Lecture 3   **Aspects of Child Development:**
Motor, Intellectual, Emotional and Social

Objectives of the lecture: By the end of the lecture, the students should be able to:

- Know the stages of the intellectual development
- Know the role of emotional development

1. Perception

Bruner divided the development of thought into two main periods; the former is from 0 to 2 named the period of perception whereas the latter starts at 2 and named the period of conception. Bruner considered that during the first period, the child identifies and discovers the world he lives in through his five senses and added that it is the sensory motor development phase. *(Britton, 1970: 192)believes that "Bruner makes a further distinction within this sensori-motor period since he sees it as the establishment of two systems of representation: the first, the action-cum-perception, which he calls "erractive system" and then the action –free-perception, which he calls "the iconic system".*

Bruner makes a further distinction within this sensori-motor period since he sees it as the establishment of two systems of representation: the first, the action-cum-perception, which he calls "erractive system" and then the action –free-perception, which he calls "the iconic system". A child learns to speak at about two years of age, but it is many years before his use of language enables him to exploit to the full the peculiar virtues of the linguistic mode of representation. His first uses of speech serve to regulate, organize, and extend his representation made in the erractive and iconic modes.

(Britton, 1970: 192-3)

2. **Intellectual Development**

Research on the intellectual development of the child highlights the fact that at each stage of development the child has a characteristic way of viewing the world and explaining it to himself. 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. The general hypothesis that has just been stated is premised on the considered judgment that any idea can be represented honestly and usefully in the thought forms of children of school age, and that these first representations can later be made more powerful and precise the more easily by virtue of this early learning.

To illustrate and support this view, we present here a somewhat detailed picture of the course of intellectual development, along with some suggestions about teaching at different stages of it. Piaget and others suggests that, roughly speaking, one may distinguish three stages in the intellectual development of the child

2.1 The First Stage

It characterizes principally of the pre-school child. In this stage, which ends (at least for Swiss school children) around the fifth or sixth year, the child's mental work consists principally in establishing relationships between experience and action; his concern is with manipulating the world through action.

This stage corresponds roughly to the period from the first development of language to the point at which the child learns to manipulate symbols. In this so-called preoperational stage, the principal symbolic achievement is that the child learns how to represent the external world through symbols established by simple generalization; things are represented as equivalent in terms of sharing some common property . But the child's symbolic world does not make

a clear separation between internal motives and feelings on the one hand and external reality on the other.

The stars, like himself, have to go to bed. The child is little able to separate his own goals from the means for achieving them, and when he has to make corrections in his activity after unsuccessful attempts at manipulating reality, he does so by what are called intuitive regulations rather than by symbolic operations, the former being of a crude trial-and-error nature rather than the result of taking thought.

2.2 The Second Stage

At this level of development-and now the child is in school-is called the stage of concrete operations .This stage is operational in contrast to the preceding stage, which is merely active….Roughly, an operation is a means of getting data about the real world into the mind and there transforming them so that they can be organized and used selectively in the solution of problems.

Indeed, Bruner assumes that a child is presented with a pinball machine which bounces a ball off a wall at an angle. Let us find out what he appreciates about the relation between the angle of incidence and the angle of reflection. The young child sees no problem: for him, the ball travels in an arc, touching the wall on the way. The somewhat older child, say age ten, sees the two angles as roughly related -as one changes so does the other. The still older child begins to grasp that there is a fixed relation between the two, and usually says it is a right angle . Finally, the thirteen- or fourteen-year-old, often by pointing the ejector directly at the wall and seeing the ball come back at the ejector, gets the idea that the two angles are equal. Each way of looking at the phenomenon represents the result of an operation in this sense, and the child's thinking is constrained by his way of pulling his observations together.

An operation differs from simple action or goal directed behavior in that it is internalized and reversible. "Internalized" means that the child does not have to go about his problem-solving any longer by overt trial and error, but can actually carry out trial and error in his head. Reversibility is present because operations are seen as characterized where appropriate by what is called "complete compensation»; that is to say, an operation can be compensated for by an inverse operation. If marbles, for example, are divided into subgroups, the child can grasp intuitively that the original collection of marbles can be restored by being added back together again. The child tips a balance scale too far with a weight and then searches systematically for a lighter weight or for something with which to get the scale rebalanced. He may carry reversibility too far by assuming that a piece of paper, once burned, can also be restored.

2.3 The Third Stage

Somewhere between ten and fourteen years of age the child passes into a third stage, which is called the stage of "formal operations" by the Geneva school. Now the child's intellectual activity seems to be based upon an ability to operate on hypothetical propositions rather than being constrained to what he has experienced or what is before him. The child can now think of possible variables and even deduce potential relationships that can later be verified by experiment or observation. Intellectual operations now appear to be predicated upon the same kinds of logical operations that are the stock in trade of the logician, the scientist, or the abstract thinker. It is at this point that the child is able to give formal or axiomatic expression to the concrete ideas that before guided his problem-solving but could not be described or formally understood.

What is most important for teaching basic concepts is that the

child be helped to pass progressively from concrete thinking to the utilization of more conceptually adequate modes of thought. But it is futile to attempt this by presenting formal explanations based on a logic that is distant from the child's manner of thinking and sterile in its implications for him. Much teaching in mathematics is of this sort. The child learns not to understand mathematical order but rather to apply certain devices or recipes without understanding their significance and connectedness. They are not translated into his way of thinking. Given this inappropriate start, he is easily led to believe that the important thing is for him to be "accurate"-though accuracy has less to do with mathematics than with computation.

A child often focuses on only one aspect of a phenomenon at a time, and this interferes with his understanding. We can set up little teaching experiments in such a way that he is forced to pay attention to other aspects. Thus, children up to about age seven estimate the speed of two automobiles by assuming that the one that gets there first is the faster, or that if one passes the other it is faster. 43 (in order to avoid such errors it is important to use toy cars and explain through examples).

One wonders in the light of all this whether it –might not be interesting to devote the first two years of school to a series of exercises in manipulating, classifying, and ordering objects in ways that highlight basic operations of logical addition, multiplication, inclusion, serial ordering, and the like . For surely these logical operations are the basis of more specific operations and concepts of all mathematics and science….building up in the child the kind of intuitive and more inductive understanding that could be given embodiment later in formal courses in mathematics and science.

Lecture 4   **Language and Conception**

   Objectives of the lecture: By the end of the lecture, the students should be able to know:
- What is a concept?
- The role of language in developing concepts
- Conceptualization as a process

1. **Definition**
- The "word" is a means of communication that plays a great role in the elaboration of any concept. However, the "word" is a group of sounds that are combined together and carry a meaning understood in certain contexts that lead to the development of a concept. Grammar is conceptualization …., the core area of study to date within the field of cognitive linguistics is semantics and morpho-semantics and the way these two components of language determine syntax (the way words are put together to create grammatically acceptable phrases and sentences).
- (*Jackendoff, 1992:54*) believes that "*the only responsible way anyone has been able to conceive of a word meaning within a cognitive theory is in terms of states of a combinational system, instantiated either in a system of symbols, or in a system of neurones, or in a system of neuronesque elements such as a connective network. Furthermore, the combination of word meanings into phrase and sentence meanings has to be governed by a combinational system that some way more or less parallels the combinational properties of syntax in which the phrases and sentences are expressed*."

- *(Jackendoff, 1992:55) declares "conceptual structures of course have to be linked by principled set of correspondence rules to the mental representations in which the meanings of linguistic expressions must be touched internally. Finally, conceptual structures have to be linked by a different set of correspondence rules to the representation for perception, and action, so that perceptual experience can be encoded in a form suitable for linguistic expression. I should also point that a combinational form like conceptual structure is necessary even for non linguistic cognition."*

- (JohnQPublik, 2007: cognitive_linguistics.txt) adds "*cognitivists believe that the grammatical structures of language are directly associated with the way people conceptualize (i.e., think about and understand) any given situation in the world. Syntax, morphology, even phonology are conceptual in nature, i.e., they are merely input and output of those cognitive processes within the human mind that govern speaking and understanding. This idea is generally encapsulated in a phrase coined by Ronald Langacker and often repeated by cognitive linguists: grammar is conceptualization."*

2. The Linguistic Form

- Thanks to the work of (Hall, 2002:57) and his followers, *"it has been shown that children acquire both the forms and meanings of their linguistic resources from repeated experiences in regularly occurring communicative activities with their primary caregivers. In their joint in interactions, the children are provided with a substantial amount of input in which the care givers make silent the more important cues to the children. Children's attention is drawn to these cues through socio pragmatic actions*

including non verbal cue such as gazing gestures, and verbal cues such as cue repetition and tone and pitch changes. They are also provided with verbal instructions that direct them to perceive or notice these cues and make connections between them and their contexts."

- Moreover, according to *(Brown, 2003:248) "Correct speech means the correct pronunciation. It means the properly selective use of many full units. One cannot speak language until one has formed the governing non linguistic concepts. First language learning, then, is more than an acquisition of a motor skill. It is a process of cognitive socialization…Cognitive socialization means the taking on of culture. Because speech is so important in the process we are prepared to find some intimate relation between the structure of language and the structure of non linguistic culture."*

- Bruner (1985) also focussed on this phenomenon that cannot be isolated since all these processes converge to establish intellectual and social capacities. He considered that it was not enough to have capacities it is also necessary to know how the child is aided in expressing himself in the medium of culture. (Bruner, 1985:23-4) stated that *"the two questions of course are inseparable signs human intellectual capacities necessarily involved to fit man for using the very prothetic device that a culture develops and accumulate for the enablement of its members".*

- Bruner (2004) argued that after one year and half of life the child is very involved in the social life and focuses mainly on communication and agreed with (Ellis, 1975: 318) when using the quotation of (Bernstein, 1961:322-3) who considers *"Different social structures will emphasize or stress different aspect of language potential and this in turn will create for the indivi-*

dual particular dimension of relevance. As the child learns his speech, so he will learn his social structure, and the latter will become the sub-stream of his innermost experience through the effect of language processing."

3. **The Impact of the Social Background**

• According to Mallet et al, (2003), the family is the main element that shapes the psychological development of the child and any troubles at the school age is always linked to home and the socio- affective development as declared by (Jay, 2002:398) in what follows: "*A main concern … is the emotional and behavioural underpinning of language….speech is more than saying words, it expresses and represents emotional states, and it manipulates listeners. Emotional aspects of speech are represented as psychological correlates meaning. Activating word's meaning activates its behavioural and emotional components."*

• Meanwhile, according to the works of Lautrey (1980), as described in Mallet et al, (2007) children who belong to families that uses flexible rule adapted to the context, have a more and more accelerated cognitive development as compared to the rigid or neglectful systems. That is to say the emotional aspect plays a great role for the future life of the child. In order to understand the way the emotional aspect develops through language, (Jay, 2002: 399) put that this process moves through three main steps.

a) Embodiment: developmentally pre-linguistic children cannot represent the world abstractly; they rely on gestual behaviour representations. Lexical development allows the child to store experiences in the world in the form of verbal symbols. From childhood through adulthood, embodiment is ongoing as new learning creates memories of experience on daily basis.

b) Emergence: view of language development (Mac wHinney, 1999). According to the emergence view of language, the social and physical interactions generate the comprehension and the creation of speech related to the objects and actions as well as social roles. That is to say, the child produces his own language since its structures emerge and are embodied through words in different kinds of communication.

c) Perspective taking: the listeners understand the sentence taking the speaker's perspective of the scene to make sense of what is happening in the utterance. Language comprehension and production are embodied processes which purpose is to convey embodied meaning. Whereas the extant to which a sentence is understood is a function of our ability to assume a perspective from which the action is achieved.

In short, as argued in, e*motional aspects of sentence production, such as stress, intensity, intonation and rhythm are not considered part of the paradigm. These feature express emotions without being verbally coded. Linguists considered suprasegmental aspects of speaking as the 'music' that comes without words. Following on this figure, the music, the stress, the rhythm, the pitch and the loudness of language are all embodied representations that create emotional meaning. These aspects of the message, when we comprehend what people say, we comprehend how they say it.*

(Jay, 2002: 408)

Lecture 5   **Language Development**

Objectives of the lecture: By the end of the lecture, the students should be able to know:
- What is thinking?
- How thinking processes information.
- How is language processed?

1. Definition of Thinking

The definition of thinking: The mind is the idea while thinking processes of the brain involved in processing information such as when we form concepts, engage in problem solving, to reason and make decisions. Some limit the definition of thinking is as follows:

- Thinking is the activity of human reason as a process of strengthening the relationship between stimulus and response.
- Thinking is a reasonable working attitude of various views with the knowledge that has been stored in the mind long before the emergence of new knowledge.
- Thinking can be interpreted to remember something, and questioned whether there is a relationship between what is intended.
- Thinking in exploring substantive Paing psychic awareness of human nature.
- Thinking is processing information mentally or cognitively by rearranging the information from the environment and the symbols are stored in the memory of his past.
- Thinking is a symbolic representation of some event train of ideas in a precise and careful that began with the problem.
- Thinking is a mental process mental representations newly formed through the transformation of information by interaction attributes such as the assessment of mental abstraction, logic, imagination and problem-solving.

- The mind we have is a wonderful thing. You may have heard it is like a computer. You may have also heard that we use only a portion of its capability. We can improve our thinking skills by understanding specific types of thinking, how they work, and practicing to improve our thinking abilities. If we become more conscious about those skills, we become better as a person, family member, and worker[1]

2. **Development of Thinking**

Thinking develops in a very coherent process as shown in the diagram bellow:
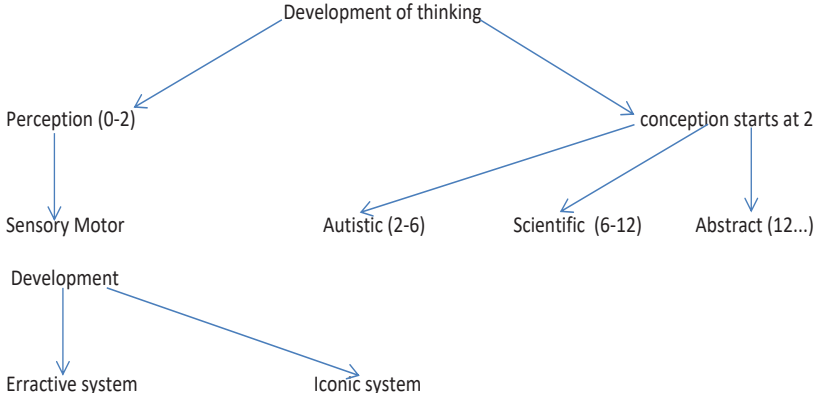
According to Piaget there is no conception without language

2.1 The first Stage

In this stage, which ends (at least for Swiss school children) around the fifth or sixth year, the child's mental work consists principally in establishing relationships between experience and action; his concern is with manipulating the world through action. This stage corresponds roughly to the period from the first development

_____
[1] http://www.cls.utk.edu/pdf/ls/Week3_Lesson18.pdf

of language to the point at which the child learns to manipulate symbols. In this so-called preoperational stage, the principal symbolic achievement is that the child learns how to represent the external world through symbols established by simple generalization; things are represented as equivalent in terms of sharing some common property. But the child's symbolic world does not make a clear separation between internal motives and feelings on the one hand and external reality on the other.

The stars, like himself, have to go to bed. The child is little able to separate his own goals from the means for achieving them, and when he has to make corrections in his activity after unsuccessful attempts at manipulating reality, he does so by what are called intuitive regulations rather than by symbolic operations, the former being of a crude trial-and-error nature rather than the result of taking thought.

2.2 The Second Stage

At this level of development, the child is in school-is called the stage of concrete operations .This stage is operational in contrast to the preceding stage, which is merely active….Roughly, an operation is a means of getting data about the real world into the mind and there transforming them so that they can be organized and used selectively in the solution of problems

Any operation differs from simple action or goal directed behaviour in that it is internalized and reversible. "Internalized" means that the child does not have to go about his problem-solving any longer by overt trial and error, but can actually carry out trial and error in his head. Reversibility is present because operations are seen as characterized where appropriate by what is called "complete compensation»; that is to say, an operation can be compensated for by an inverse operation. If marbles, for example, are divided into

subgroups, the child can grasp intuitively that the original collection of marbles can be restored by being added back together again. The child tips a balance scale too far with a weight and then searches systematically for a lighter weight or for something with which to get the scale rebalanced. He may carry reversibility too far by assuming that a piece of paper, once burned, can also be restored.

2.3 The Third Stage

Somewhere between ten and fourteen years of age the child passes into a third stage, which is called the stage of "formal operations" by the Geneva school. Now the child's intellectual activity seems to be based upon an ability to operate on hypothetical propositions rather than being constrained to what he has experienced or what is before him. The child can now think of possible variables and even deduce potential relationships that can later be verified by experiment or observation. Intellectual operations now appear to be predicated upon the same kinds of logical operations that are the stock in trade of the logician, the scientist, or the abstract thinker. It is at this point that the child is able to give formal or axiomatic expression to the concrete ideas that before guided his problem-solving but could not be described or formally understood.

What is most important for teaching basic concepts is that the child be helped to pass progressively from concrete thinking to the utilization of more conceptually adequate modes of thought. But it is futile to attempt this by presenting formal explanations based on a logic that is distant from the child's manner of thinking and sterile in its implications for him. Much teaching in mathematics is of this sort. The child learns not to understand mathematical order but rather to apply certain devices or recipes without understanding their significance and connectedness. They are not translated into his way

of thinking. Given this inappropriate start, he is easily led to believe that the important thing is for him to be "accurate"-though accuracy has less to do with mathematics than with computation.

One wonders in the light of all this whether it –might not be interesting to devote the first two years of school to a series of exercises in manipulating, classifying, and ordering objects in ways that highlight basic operations of logical addition, multiplication, inclusion, serial ordering, and the like . For surely these logical operations are the basis of more specific operations and concepts of all mathematics and science….building up in the child the kind of intuitive and more inductive understanding that could be given embodiment later in formal courses in mathematics and science.

The mother tongue shapes the cognitive organization and perception by making children filtering incoming information, leading children to, pay more or less attention to different aspects of reality, which therefore become more or less silent and available in every day functioning. (Hickmann, 2001: 113)

Before the frontal lobe fully develops, children use more primitive brain functioning. Before adolescence, the limbic system, or the emotional brain, uses instinctual fight or flight mechanisms to make decisions instead of higher-order cognition. The frontal lobe, which controls higher-order functions such as planning, thinking ahead, problem solving, impulse control, mood regulation, and reasoning, is not fully developed until the early twenties.

(Scott and Steinberg, 2008)

3. **Piaget vs Vygotsky**

Piaget

↓

Egocentric Speech

↓

Monologue

↓

Socialized Speech
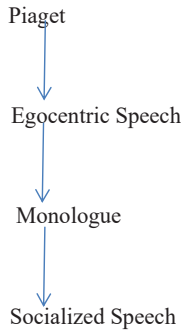
Piaget regards the gradual disappearance of the running commentary as a gradual consequence of a child's involved ability to internalize his listener, to escape from the limitation of his own point of view; egocentric speech , is according to Piaget, gradually replaced by a more natural form, socialized speech.

(Britton, 1970:59)

Vygotsky

↓

Socialized Speech

↓ ↘

Monologue   Inner Speech

(thinking in pure meaning)

↓
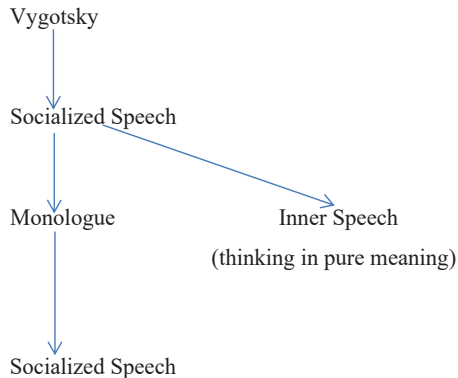
Socialized Speech

According to Vygotsky, the child is born in a micro society. Thus, the infant is in everyday contact with a socialized speech that he acquires. Although, he develops the monologue, he still produces this socialized speech that is adapted through time and age. The more the child grows up the more he internalizes the monologue that becomes 'inner speech' which is thinking in pure meaning to which a form is given in relation to the context of its use.

Piaget Vygotsky

Socialized Speech involves the egocentric speech
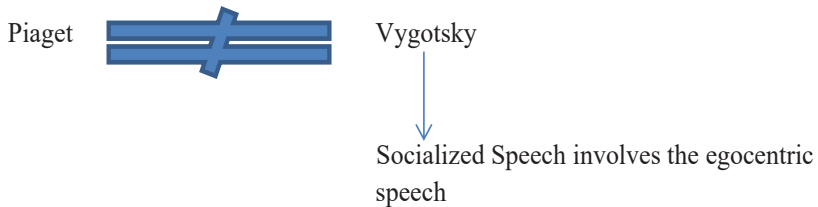
4. **Imitation**

When speaking to a child adults modify their language and adapt it to him that is called 'motherese'. (Pinker, 2005: 8) defined motherese as the speech to the child that is "slower, shorter, in the same ways (but not all) simpler, higher-pitched in content to the present situation, compared to speech among adults". The motherse may seem easy to understand and easy at the first glance, in fact, it is this data that makes the linguistic background of the child. Meanwhile, Piaget considered that when speaking to children adults imitate them, as described by Britton (1970), he names this process 'expansion' as defined follows:

> The mother's utterance is an imitation of the child's in the obvious sense. What she says is based closely on what the child said…..she consistently uses short and simple sentences, unlike conversational style of adults. Language is in fact rather like the speech of child, but a child a little more grown up in speech. (Britton, 1970: 45)

The child does not imitate his parents' speech but the way his parents use language (competence vs performance). On the other hand, the child imitates his parents' speech too. This phenomenon is named 'reduction' by Piaget and defined as a linguistic improvisation that makes the child imitate not what is said around him but the way it is said. Adding to this, it is the ability to shorten sentences by using only key words in order to convey a message. For instance,

these are recordings of a18months and 27days girl made by Brown and Bellugui (1964) as referred to in (Britton, 1970:43):

Mother's utterance	Child's utterance
"Baby is in the high chair"	"Baby high chair"
"Eve is having lunch"	"Eve lunch"
"He sat on the wall"	"Sat wall"

Lecture 6   **Learning and Socialization**

Objectives of the lecture: By the end of the lecture, the students should be able to know:
- The social role of language
- The socialization process
- The relation between socialization and learning

1. **Definition**
   Socialization is defined as:

...the process whereby a child acquires a specific cultural identity... socialization refers to the process whereby the biological is transformed into a specific cultural being... the process of socialization is a complex process of control, whereby a particular moral, cognitive and affective awareness is evoked in the child and given a specific form and content.(Bernstein, 1970:162)

The sociologist Durkheim (2006) believed that Man is made of two main elements totally different but deeply tied. The former, named the individual being, shaped by all the mental states linked with the events of one's personal life. Whereas, the latter holds a system of ideas, feelings and habits that generates our religious and moral beliefs as well as traditions, culture and professional behaviour that made our social being. As a consequence, ones' personality is determined by these two parameters and the aim of education is to develop them in order to make a normal human being. Durkheim added that the social being is not determined by a biological or genetic heritage but is elaborated by the background he lives in, starting from the close family and step by step reaches the whole society. Yet, he considered school as the most important period of this whole process.

2. **Language Learning**

In their classrooms, teachers and students together create communities based on shared goals, shared resources and shared patterns and norms for participating as legitimate members of the communities. In their interactions with each other, teachers and students assume particular identities and roles, and together they develop understandings of what constitutes not only the substance of what is to be learned, but also the very process of learning itself. (Hall, 2002: 85)

Moreover, (Hall, 2002: 71) considered that the leaning process is viewed as a purely cognitive process achieved through internal mechanisms and innate capacities, yet "learner's experiences in their socio cultural worlds were not considered significant to the process" " and any problem in the learning process is always linked to a deficiency of the cognitive system.

Children whose home activities reflect the dominant practices of school are likely to have more opportunities for success since they only need to build on and extend what they have learned at home. On the other hand, children whose home practices differ from those of their school are likely to have more difficulty since they will need to add additional repertoires of learning practices to those they already know. (Hall, 2002:74

Hall (2002:73-4) described Heath (1983)'s comparative study between Trackton's rural black community and Roadville's white one and an urban middle-class black and white families. The results show that the socialization of each sample differs from the other one. In fact, Trackton's children tend to exaggerate when telling stories whereas Roadville's ones were asked to stick to fact and not lie. It was also noticed that children from both rural communities had difficulty in succeeding academically than the urban ones whose home

practice is closer to that of school that is to say that the social background paves the way to the learning process.

3. **Motivation**

If learning is being driven by feelings of desire to learn or enjoyment of the process of learning, then there must be some sense of reflection on oneself; and knowledge about oneself as a learner. This is the metacognitive knowledge aspect of developing metacognition. In addition, if enjoyment and excitement is being felt from the process of learning then there is more likelihood that the learner will be aware of or be actively seeking out different ways of learning. So children, who have a sense of excitement about learning, as most do in the early years, are already primed for developing metacognition.

(larkin, 2010: 28)

His attitude is a decisive element in his success or failure, the more he is involved the more he is active and eager to know as described by Larkin (2010) who considered that adding to the intrinsic motivation, like love to a parent he wanted to imitate, develops a strong willingness that urges the child to study and reach his goals. Meanwhile, the external motivation is shaped by a present or a trip at the end of the year, the interest of the child in learning is raised when a target is clearly determined. Accordingly, Larkin added that there are three other kinds that shaped the behaviour of the child.

3.1 Learned Helplessness Motivation

This style of motivation is said to be independent of ability, so that children may be perfectly able in a subject but their own perception of their ability and their view of ability as fixed, negatively impacts on their performance. This can lead to a cycle of failure followed by avoidance of future challenges and more failure, so that

a self concept of "I'm no good at X" is created and perpetuated.

<div align="right">(Larkin, 2010: 27)</div>

Unfortunately, this kind of motivation has a negative impact on the child who starts to give up easily each time he is confronted to an obstacle or to fulfill only the part of the task he is able to achieve without any attempt to solve the rest of the problem. Moreover, it also has a negative impact on the school results and diminishes the self-esteem that entails a week personality and a feeling of inability that develops through time. On the other hand, as described in Larkin, Covington (1984) described another kind of motivation totally different from the first.

3.2 Self-worth Motivation

This is a motivational style where the child does all his best to succeed in solving problems without giving importance to the degree of difficulty as shown in the following definition:

Children demonstrating this motivational style are often concerned with their success on a task in terms of their own self esteem rather than with successful completion of the task itself. These children are likely to ascribe to a fixed view of ability and believe that if they do badly on a task this is because they are of low ability. For children exhibiting this style of motivation, tasks perceived as difficult are likely to cause a high degree of anxiety and stress, because as the chance of failure is heightened so is a threat to their self concept and self esteem. It is likely that they will try to avoid these threats by suggesting that the task is not worth doing or does not interest them. (Larkin, 2010: 27)

As a consequence, stress and anxiety have negative impact on the child behaviour and make him avoid doing things in order not

to fail in solving the problem that makes his experience reduced and diminished his self-esteem. Thus, this kind of motivation is a real handicap in the learning process since the lack of participation and involvement in the classroom may entail a school failure as well as a social one for the child may have problems in the insertion within a group.

On the other hand, the third motivational style is described as that of 'mastery oriented' may seem the most adequate model for in this model, the child focuses on the task oriented strategies not on people's attitude toward his achievement. This leads to less stress and anxiety that facilitates the success in solving problems as declared for children:

… understand that ability is not fixed, that learning involves failure and mistakes and consequently they are more likely to think about how they have solved a task. Thus they build a base of Metacognitive knowledge about themselves in relation to tasks, which has the benefit of enabling them to transfer their learning from one situation to another. (Larkin, 2010: 27)

3.3 Mastery Oriented Motivation

Mastery oriented motivation enables the child to concentrate on the situation by using the data he possesses as well as the result of his previous experience. In short, motivation is a determinant element that widens the horizons of knowledge of the child, stimulates his curiosity and develops his eagerness to succeed. Adding to this, it elaborates a bridge between what the child is able to succeed in and what he is about to do that develops his metacognitive abilities necessary in the classroom and in his social life.

Infact, (McInerney et al 2008: 11) considered that motivation

was characterized by four qualities: Choice, Energy, Standards and Continuing motivation and defined them as follows:

- Choice, we choose to do some things rather than others. Why do we choose to do the things we do academically, socially, and physically? In a very real sense motivation is therefore a personal investment through choice.
- Energy, activities in which we are motivated are usually characterized by high energy, involvement, enthusiasm, and interest.
- Standards, we usually seek high personal standards in activities in which we are motivated, we don't settle for second best or substandard performance. We try to better our own performance, and, at times, try to beat the performance of others.
- Continuing motivation, when we are motivated we return to the activity voluntarily, time and again, because we enjoy it and feel rewarded through it. So in our classrooms we want our students to: choose to do the subject and invest their energy, enthusiasm and interest in it.

Goal setting involves establishing quantitative and qualitative standards or objectives to serve as the aim of one's actions. Setting appropriately challenging levels of goals, divided according to different phases of attainment, is crucial in motivating students to engage in learning and make them self-regulated learners. These goals help give structure to student learning, and a set of benchmarks by which students and teachers can evaluate progression. Knowledge that progress is being made towards desired goals is very motivational, enhances students' self-efficacy, and leads students to select new, challenging goals.   (McInerney et al, 2008: 11)

When the teacher asked his pupils about the job they want to do when being old, every one of them gave an answer. In fact, each child

has a dream about his future life, there are who want to be teachers, others doctors or policeman. In their investigation, Mcinerney et al, referred to the work of Schunk (1995) where he declared that there are three aspects of goals: short-term, medium-term and long –term goals. The former is the most accessible to learners since, according to McInerney et al (2008: 16), short- term goals 'can raise self-efficacy simply by making a task appear more manageable, and they can also enhance perceptions of competence by giving continual feedback that conveys a sense of mastery' adding to the fact that 'goal setting is more effective when goals are proximal (short-term)'.

Besides, medium-term and long-term goals may reduce the motivation of learner for this reason, it is important to involve learner in determining each goal as shown in the work of Schunk (1995):

Facilitating students to set their own goals will produce high goal Commitment. This is particularly crucial because not only are students expected to show a high self-set goal commitment, they will also need this skill to be life-long learners and when their achievement pursuit is not monitored on a day-to-day basis.

(McInerney et al, 2008: 16)

It is worth mentioning that goals are determined by various parameters among them social, emotional and cognitive ones that make the focus of attention intrinsic value of learning.

Lecture 7   **Cognitive Development**

Objectives of the lecture: By the end of the lecture, the students should be able to know:
- What is an innate ability?
- What is intelligence?
- Types of intelligence

1. Innate Abilities

A person's innate abilities are at the foundation of the learning process. These represent the genetically determined abilities -- and limitations -- we possess at birth that we inherited from our parents. Mozart certainly possessed a greater innate musical capacity than can be said for most of us, but most of us can improve our musical ability with practice. Our upward limits are defined by innate abilities, but how near we come to performing at those upper limits is determined by other elements necessary to learning.

2. Sensory/Motor Skills

Sensory and motor skills build on the foundation of our innate abilities. Sensory skills are those such as vision, hearing, and touch. They are responsible for receiving information. Motor skills relate to muscles and movement and include crawling, walking, running, handwriting, and speaking. Motor skills give expression to the information our senses receive and process.

Both sensory and motor skills are partially determined by genetic code and partly learned through repetitive interaction with the environment. These skills, in almost everyone, can be improved with proper practice. This is the basis for athletic and music instrument practice, physical therapy, and other similar performance enhancement efforts.

3. Definition

The term "cognition" refers to all processes by which the sensory input is transformed, reduced, elaborated, stored, recovered, and used. It is concerned with these processes even when they operate in the absence of relevant stimulation, as in images and hallucinations... Given such a sweeping definition, it is apparent that cognition is involved in everything a human being might possibly do; that every psychological phenomenon is a cognitive phenomenon. But although cognitive psychology is concerned with all human activity rather than some fraction of it, the concern is from a particular point of view. Other viewpoints are equally legitimate and necessary. Dynamic psychology, which begins with motives rather than with sensory input, is a case in point. Instead of asking how a man's actions and experiences result from what he saw, remembered, or believed, the dynamic psychologist asks how they follow from the subject's goals, needs, or instincts.

4. Cognitive Skills

Cognitive abilities allow us to process the sensory information we collect. These include our ability to analyze, evaluate, retain information, recall experiences, make comparisons, and determine action. Although cognitive skills have an innate component, the bulk of cognitive skills are learned. When this development does not occur naturally, cognitive weaknesses are the result. These weaknesses diminish an individual's capacity to learn and are difficult to correct without specific and appropriate intervention. Like sensory and motor skills, cognitive skills can be practiced and improved with the right training. Changes in cognitive ability can be seen dramatically in cases where an injury affects a certain physical area of the brain. The correct therapy can actually "rewire" a patient's brain, and cognitive function can be restored or enhanced. This is also true

in students. Weak cognitive skills can be strengthened, and normal cognitive skills can be enhanced to increase ease and performance in learning.

5. Forms of Intelligence

Intelligence encompasses a number of mental abilities such as reasoning, planning and problem-solving. The topic of intelligence is one of the biggest and most debated in psychology. Learn more about some of the many theories of intelligence, the history of intelligence testing and much more.

It involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our surroundings – 'catching on,' 'making sense' of things, or 'figuring out' what to do

5.1 Theories of Intelligence

While there are numerous theories of intelligence, psychologists do not agree on a standard definition for the concept of 'intelligence.' Learn more about some of the major theories of intelligence that have emerged.

In addition to disagreements about the basic nature of intelligence, psychologists have spent a great amount of time and energy debating the various influences on individual intelligence. The debate focuses on one of the major questions in psychology: Which is more important-nature or nurture?

Theories that intelligence is fixed at birth and correlated with racial or ethnic group membership have been debunked, says Nisbett. Intelligence is highly malleable and parents, schools, and cultural

beliefs have a major role in its development.

There are a number of theories of intelligence – Howard Gardner's eight intelligences, Robert Sternberg's theory of practical intelligence and creativity, and others. But Nisbett contends that IQ is the measure that correlates most strongly with academic and workplace success. IQ tests measure two different things:

• Crystallized intelligence – vocabulary, information, skills like arithmetic, and comprehension of the way the world works, including answers to questions like, "Why are houses on a street numbered consecutively?"

• Fluid intelligence – the ability to solve novel problems and the ability to learn; this kind of intelligence depends on working memory, paying attention, and suppressing tempting but irrelevant actions.

5.2 Intelligence Test

Today's intelligence tests are based largely on the original test devised in the early 1900's by French psychologist Alfred Binet. In order to identify students in need of extra assistance in school, the French government asked Binet to devise a test that could be used to discover which students most needed academic help.

Based on his research, Binet developed the concept of mental age. Certain questions he posed were easily answered by children of certain age groups. Some children were able to answer questions that were typically answered by children of an older age - these children had a higher mental age than their actual chronological age. Binet's measure of intelligence was based on the average abilities of children of a particular age group.

Now that you understand these key terms, we can talk a bit more

about how we interpret IQ scores. The average score on an IQ test is 100. Sixty-eight percent of IQ scores fall within one standard deviation of the mean. So that means that the majority of people have an IQ score between 85 and 115.

- 1 to 24 - Profound mental disability
- 25 to 39 - Severe mental disability
- 40 to 54 - Moderate mental disability
- 55 to 69 - Mild mental disability
- 70 to 84 - Borderline mental disability
- 85 to 114 - Average intelligence
- 115 to 129 - Above average; bright
- 130 to 144 - Moderately gifted
- 145 to 159 - Highly gifted
- 160 to 179 - Exceptionally gifted
- 180 and up - Profoundly gifted

5.3 Forms of intelligence

Each person demonstrates distinctive personal traits, using each of these forms of intelligence but in their own personal combination. This explains why many students are unable to draw on the forms of intelligence needed for the types of teaching that we offer. Students cannot meet requirements that are not adapted to their intellectual capacities, because too often we use forms of teaching that rely on theory and deduction, where abstraction is critical to success. As a result, these students develop negative images of themselves and are never able to attain their full potential.

- **Linguistic verbal intelligence:** it is used in verbal and written communication and in reading. We use linguistic verbal intelligence to articulate thinking and develop opinions. This form of intelligence is useful to communicators, journalists and salespersons.

- **Logical mathematical intelligence:** it governs our ability to measure, calculate, solve problems and use computers. This is the intelligence used by science and mathematics scholars as well as accountants. In nursing, we call upon our logical mathematical intelligence to solve complex problems, develop plans of care, assess quality of care, create various types of schedules, take pharmacological measurements and understand the science behind contributing disciplines such as biology, physics and chemistry.

- **Intrapersonal intelligence**: it gives us the capacity to think about who we are, to know ourselves, to have a personal identity. It helps us reflect on things and leads to introspection, meditation, questioning and spirituality. Intrapersonal intelligence allows us to exercise a precious skill in education and nursing: metacognition, which makes it possible to reconsider our actions, evaluate their relevance and make any needed corrections. It is often seen in people who are individualistic and independent. It makes possible to think like another person, to understand what they are going through, to perceive their needs and make ours understood, to share our ideas, to cooperate with others and to help and take care of others.

- **Spatial intelligence: it** is based on visual perception and features a strong sense of imagination. It gives us an aptitude for creating mental images and perceiving images outside ourselves, for thinking about and recreating the visible world. Spatial intelligence is essential to the visual arts, wayfinding and creativity of all kinds. It is the dominant type of intelligence seen in artists and in many people who use their hands to create useful or beautiful things and representations in space. Spatial intelli-

gence is strong in architects, engineers, advertising executives, film directors, etc.

- **Kinetic intelligence:** it is the intelligence of the body. It helps us control our movement, which is the basis of general and fine motivity: our ability to manipulate objects. Kinetic intelligence makes it possible to feel and think about sensations in our bodies and to align thought with movement in dance, sport and techniques. It is the type of intelligence found in athletes, craftspeople and engineers. In nursing, we use kinetic intelligence to think about our actions when providing care and to measure our strength when we try to work with greater dexterity.

- **Musical intelligence: it** is used to perceive and appreciate sounds, to feel rhythms and melodies, to pay attention to overall harmony and to stay in time with sounds and movements. In nursing, musical intelligence is used when we soften and modulate our voices according to the type of care we are giving and according to the psychological circumstances of a care situation.

- **Naturalist intelligence:** it is the last intelligence that Gardner defined. As you might expect, it gives us access to the values and sensations found in nature and to knowledge about flora, fauna and the earth sciences in general. Naturalist intelligence also helps us develop our ability to organize, select, categorize, create lists, collect, garden, decorate and conduct scientific research.

- **Existential intelligence:** it is a form of intelligence that Gardner is currently working on and may add to his theory. This, the ninth form of intelligence, is more comprehensive and deals with the meaning of life. Existential intelligence draws on several other

forms of intelligence, so that the individual can combine multiple abilities and make them work.

- **Interpersonal Intelligence:** Interpersonal intelligence is the ability to understand and interact effectively with others. It involves effective verbal and nonverbal communication, the ability to note distinctions among others, sensitivity to the moods and temperaments of others, and the ability to entertain multiple perspectives. Teachers, social workers, actors, and politicians all exhibit interpersonal intelligence. Young adults with this kind of intelligence are leaders among their peers, are good at communicating, and seem to understand others' feelings and motives.

- **Intelligence at School:** Dr. Howard Gardner, author of Frames of Mind and co-director of Project Zero at Harvard University, has created a Theory of Multiple Intelligences. He points out that school systems often focus on a narrow range of intelligence that involves primarily verbal/linguistic and logical/mathematical skills. While knowledge and skills in these areas are essential for surviving and thriving in the world, he suggests that there are at least six other kinds of intelligence that are important to fuller human development and that almost everyone has available to develop. They include, visual/spatial, bodily/kinesthetic, musical, interpersonal, naturalist and intrapersonal intelligence.

The strongest skills of many children lie in these six areas, which are frequently undervalued in some traditional schools. The fact is that when children have an opportunity to learn through their strengths, they may become more successful at learning all subjects--including the "basic skills."

Gardner believes that the eight intelligences he has identified are independent, in that they develop at different times and to different degrees in different individuals. They are, however, closely related, and many teachers and parents are finding that when an individual becomes more proficient in one area, the whole constellation of intelligence may be enhanced.

Lecture 8   **Metacognitive Development**

Objectives of the lecture: By the end of the lecture, the students should be able to know:
-        What is metacognition?
-        What is motivation?
-        Types of motivation?
-        The role of each type of Motivation

1.   **Definition**

When the child starts to read , he makes great efforts and concentrates his attention on linking sounds to make words and find the correct rule to make a meaningful sentence that corresponds to the correct situation. Through time, this process becomes easier and needs less attention and concentration. It becomes systematic.

In order to model metacognition, we need a language which involves what are called mental state words, e.g. "know", " think", "guess", "remember". Metacognitive knowledge is described as the stored knowledge about one's own cognitive states, about others' cognitive states or about the nature of cognition in general. Metacognitive knowledge also refers to an understanding of how different factors may interact to influence our thinking.

Metacognitive experiences are full of emotion and feelings and thus can be influenced by a person's mood. Recent work on the link between mood and metacognitive experiences has shown that a negative mood before starting a task is linked to feelings of difficulty during the task (Efklides & Petkaki, 2005).

However, this may not be a bad thing as feelings of difficulty may result in investment of more effort and more high level thinking about the task. Also a positive mood may not have immediate effects

on how a task is approached or progressed, although it tends to become clearer as problem solving continues. Thus a positive mood is linked to resilience and to maintaining interest.

Drawing on Vygotsky, the notion of metacognition developing from social interactions has linked metacognition to the broader issue of self regulated learning. So, in education, we are aiming not simply to teach curriculum subjects, but also to ensure that our students understand how to learn and to take responsibility for their own learning. The results showed that metacognitive skills were at least partly independent of intelligence and that metacognitive skills have a positive impact on learning.

2. **Motivation**

If learning is being driven by feelings of desire to learn or enjoyment of the process of learning, then there must be some sense of reflection on oneself; and knowledge about oneself as a learner. This is the metacognitive knowledge aspect of developing metacognition. In addition, if enjoyment and excitement is being felt from the process of learning then there is more likelihood that the learner will be aware of or be actively seeking out different ways of learning. So children, who have a sense of excitement about learning, as most do in the early years, are already primed for developing metacognition.

2.1 Learned Helplessness Motivation

This style of motivation is said to be independent of ability, so that children may be perfectly able in a subject but their own perception of their ability and their view of ability as fixed, negatively impacts on their performance. This can lead to a cycle of failure followed by avoidance of future challenges and more failure, so that a self concept of "I'm no good at X" is created and perpetuated.

Children exhibiting this motivational style are also likely to give up easily, especially when they hit an obstacle or "get stuck" on a part of the task. In addition to this having a negative impact on academic performance, the feelings of inadequacy associated with this motivational style are likely to impact on self concept and self esteem, and thereby transfer to other areas of life.

2.2 Self-worth Motivation

Children demonstrating this motivational style are often concerned with their success on a task in terms of their own self esteem rather than with successful completion of the task itself. These children are likely to ascribe to a fixed view of ability and believe that if they do badly on a task this is because they are of low ability.

For children exhibiting this style of motivation, tasks perceived as difficult are likely to cause a high degree of anxiety and stress, because as the chance of failure is heightened so is a threat to their self concept and self esteem. It is likely that they will try to avoid these threats by suggesting that the task is not worth doing or does not interest them.

2.3 Mastery Oriented Motivation

Children exhibiting this style are likely to focus on task oriented strategies and effort. They understand that ability is not fixed, that learning involves failure and mistakes and consequently they are more likely to think about how they have solved a task. Thus they build a base of Metacognitive knowledge about themselves in relation to tasks, which has the benefit of enabling them to transfer their learning from one situation to another.

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3. Metacognition

Metacognition is linked to big questions around intelligence, consciousness and emotions. From its initial conceptualization, metacognition was seen as incorporating both declarative knowledge, referred to as Metacognitive knowledge, and procedural knowledge aimed at monitoring and controlling thinking. Procedural metacognition has also been referred to as Metacognitive skills.

Bruer (1997) early childhood is a window of opportunity for educators to intervene and provide learning opportunities for very young children in a wide range of subjects from music to languages and mathematics. If we miss these opportunities for teaching children very early on, then we are doing them a disservice and programmes designed to intervene in children's cognitive development which start too late are unlikely to prove successful.

Lecture 9   **Affect in Learning**

Objectives of the lecture: By the end of the lecture, the students should be able to know:

- What is affect?
- The role of affect in acquisition vs learning
- Affect and mental images

1. **Definition**

The word 'affect' has been used in a number of overlapping but slightly different ways in the literature. Here, I shall follow Dulay, Burt and Krashen (1982) in saying that one's affect towards a particular thing or action or situation or experience is how that thing or that action or that situation or that experience fits in one's needs or purposes, and its resulting effect on one's emotions. The inclusion of emotion along with needs and purposes is not surprising when we consider that emotions are commonly responses to how various needs and purposes are not being met. Stevick (1999: 44)

When being involved in a learning process, the learner is at the bottom and at the same time the key of the whole success.

Pedagogical approach

Syllabus designer

Textbook writer

Teacher

Learner
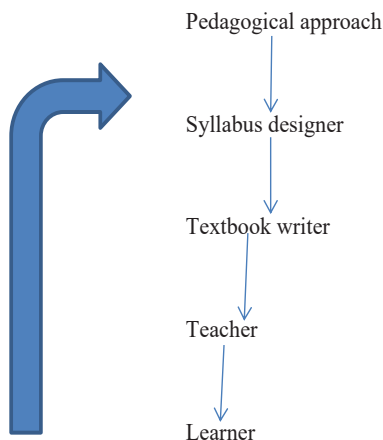
2. Learning as a Process

Stevick, in his investigation made reference to learning that she considered as the modifications brought to the data already stored in the brain whereas teaching is the help needed to achieve this change. That is to say, through teaching the child is introduced to a simplified knowledge that the teacher explains in order to be understood and internalized and stored in memory. Adding to this, the investigations of Stevick highlighted the link between learning and memory when describing the way changes are brought to the already possessed data:

…these internal resources, then, are lasting but changeable-they're changeable but lasting. When we are thinking about the changeable aspect of these inner resources, we talk about 'learning'. When we're focusing on their lasting aspect, on the other hand, we use a different terminology, and we talk about 'memory'. Each new experience strengthens or weakens connections among many pairs of items in these networks. So when we 'remember' something, we're not so much 'retrieving' whole images from an archive as we're 'reconstructing' new images from those networks. Stevick (1999: 46)

On the other hand, Vygotsky considered that any newly internalized data paves the way to the next one since knowledge is constructed and interlinked. According in (Damasio, 1994:100) as quoted by (Stevick, 1995: 46), " The brain does not file Polaroid pictures… or audiotapes…There seem to be no permanently held pictures of anything, even miniaturized, no microfilms, no hard copies…". This makes linguists consider that all the elements stored in the brain are not unchangeable and stable and each time a new data is introduced the stored one changes as Damasio added "… whenever we call a given a given object [or whatever], we [are getting] a newly recons-

tructed version of the original".

Stevick referred to the work of (Hamilton, 1983:77) where he declares that affect is part of the cognitive schemata of memory that is way the impact is direct and clearly noticed. In this respect, (Stevick, 1999: 47) in his investigation quoted Damasio who remarked that:

Because the brain is the captive audience of the body, feelings, are winners among equals. And since what comes first constitutes a frame of reference for what comes after, feelings have a say on the brain and cognition go about their business. Their influence is immense.

<div align="right">(Damasio 1994: 159-160)</div>

As a consequence, the role of affect reaches data processing that modifies our understanding and the development of our concept. It is a long process that Stevick described through various steps. When data is introduced for the first time it activates the corresponding items established in the memory. In his works, Anderson (1984), as mentioned in (Stevick, 1995:47), considered that "this activation spreads through the networks, and as it spreads, it produces various pictures or words or mental images". These mental images or concepts are modified and stored in the working memory for no more than 20 seconds and then transferred in the long term memory.

This subconscious process is the same for data is either brought through the five senses or from other sources since it opens the view to imagination as shown by (Stevick, 1995: 49) when dealing with the work of (Damasio, 1994:97) who considered "Images of what has not yet happened and may not in fact ever come to pass are no different in nature from the ones you hold of something that has already happened". All these newly introduced images are used in

thinking, understanding and learning and thus have an impact on our decision making and our whole life. In fact one may wonder about the link between role of affect in the learning process and the future of a child. (Stevick, 1999: 49) agreed with Hamilton and quoted him for he believed that:

What dominates the mind landscape once you are faced with decision is the rich, board display of knowledge about the situation that is being generated by its consideration. Images corresponding to myriad options for action and myriad possible outcomes are activated and keep being brought into focus.

(Hamilton, 1983:52)

3. The Mental Image

Moreover, the development of mental images create connections between the short and the long term memory not limited to concepts in one language but spreads even among different languages that develop feelings and the behaviour of the learner. Adding to this, these connections make the child able to use the data collected in one language to understand the ideas developed in the other one for this reason the knowledge gets wider everyday and influences the personality of the learner. (Stevick, 1999: 50) considered that "These feelings may in turn bring back with them all sorts of pictures and personalities and assorted tricks".

Stevick illustrated with learning Spanish and Portuguese and the way learning interferes. These interferences take place in the brain and precisely in the networks of the long term memory and are shaped by affect through the feedback the learner receives. This feedback is divided into cognitive and affective ones as described by (Stevick, 1995: 51):

- Cognitive feedback answers questions like 'How satisfactory did I get my message across?'
- Affective feedback, on the other hand, answers questions like 'what kind of feeling did I come away with?'
- The source of the feedback may be either external (from people) or internal (from how one sound to oneself).
- Feedbacks may either be positive or negative.

Infact, Stevick believed that the external feedback results from the learner's desire to exchange ideas and views communication if it is accurate the feedback will be positive; if not it will be negative. He declared:

External affective feedback derives its effectiveness from a quite different source: from the learner's desire to identify with a particular group of people, or possibly to dissociated from some group. If the other person – that is, the person the learner is talking with-seems to be attentive, interested and enjoying the exchange then external affective feedback will be positive. To the extent that the other person seems different, bored, critical or annoyed external affective feedback will be negative. External affective feedback influences the learner's willingness to keep on trying to communicate in spite of occasional negative feedback of the external cognitive variety. (Stevick, 1999: 51)

Internal cognitive feedback is achieved only by the relation between the working and the long term memory thanks to the comparison and analysis that take place at that level. In short, all the modifications are achieved at the brain, the organ that controls all our body and mind. Besides, feelings are not always positive and motivate the child in his learning process. Anxiety is an emotional state that (Prince, 2002: 1) defines as "a feeling unlike any other signals

of distress… a feeling something like…dread or horror or loathing, but it can't be managed like other pain".

Language anxiety is fear or apprehension occurring when a learner is expected to perform in the second or foreign language (Gardner and Maclntyre 1993). Language anxiety ranks high among factors influencing language learning, regardless of whether the setting is informal (learning language on the street') or formal (in the language classroom).(Oxford1999: 59)

…by self-esteem we refer to the evaluation which the individual makes and customarily maintains with regard to himself; it expresses an attitude of approval or disapproval, and indicates the extent to which an individual believes himself to be capable, significant, successful and worthy. In short, self-esteem is a personal judgment of worthiness that is expressed in the attitudes that the individual holds towards himself.

(Andrés, 1999: 87)

4. Affect in Leaning

Self confidence may be threatened when the child does not identify himself among the group he belongs to. He may get lost with a language that does not correspond to his cultural background that may lead to an identity and cultural shock as defined by Oxford in the next statement:

…identification with a language group or target culture implies that the learner is an insider, Young (1992) suggest that anxiety is lower… and, anxiety is higher if the student does not identify with language group…Anxiety about losing one's own identity can be part of culture shock. Culture shock is defined as a 'form of anxiety that results from the loss of commonly perceived and understood

signs and symbols of social intercourse' (Adler 1987: 25). Culture shock can involve some of these symptoms: emotional regression, physical illness, panic, anger, hopelessness, self-pity, lack of confidence, indecision, sadness, alienation, a sense of deception of 'reduced personality' and glorification of one's own native culture.

<div align="right">(Oxford: 1999, 64-5)</div>

A cultural shock leads to an anxiety with very bad consequences on the learning process. Moreover, it also leads to a psychological state that influences the personality of the learner: anger, deception, sadness, lack of confidence as declared bellow:

When learning fails, teachers must scrutinize their own practice rather than blaming the s tudents. The teacher is always in control of the environment, whether he or she admits it or not, since environment includes methodological procedure; Lozanov teachers acknowledge and accept this responsibility.

<div align="right">(Harsen, 1999: 218)</div>

According to Harsen (1999), anxiety leads automatically to defensive reactions that make the pupil sleepy and daydreaming in the classroom as well as a negative attitude towards his friends and the teacher. On the opposite, feeling at ease develops positive attitude to learning. The learner is not aggressive, concentrated and open minded in the classroom. (Harsen, 1999: 214) described emotions at the mirror of the situation the learner is facing in the classroom where "it may appear in intellectual form , as for example ' I don't understand'…A psychological point of view does not take verbal messages literary, but evaluates them as manifestations of emotional process".

For this reason the role of the teacher is very important in solving

such a situation. If the learner is treated as an empty state that needs to be full with various kinds of input without taking into consideration the previously acquired knowledge, anxiety develops. In fact, the cultural background of the child can not be neglected for the cognitive and the metacognitive developments have already started at home. Thus, (Harsen, 1999: 215) believed that the most important element that should be avoided in a classroom is "producing fear, which may trigger the primitive panic reactions".

Lecture 10   **Bloom's Taxonomy**

Objectives of the lecture: By the end of the lecture, the students should be able to know:
- The levels of Bloom's Taxonomy
- The cognitive domain
- the lowest level of training
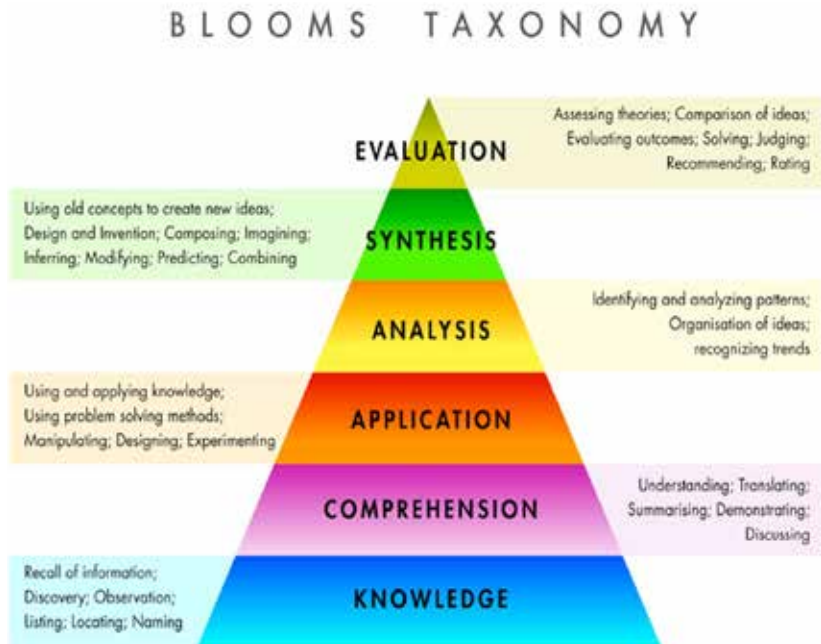- higher level of thinking

1. Definition

Bloom believed that education should focus on 'mastery' of subjects and the promotion of higher forms of thinking, rather than a utilitarian approach to simply transferring facts. Bloom demonstrated decades ago that most teaching tended to be focused on fact-transfer and information recall - the lowest level of training - rather than true meaningful personal development, and this remains a central challenge for educators and trainers in modern times. Much corporate training is also limited to non-participative, unfeeling knowledge-transfer, (all those stultifyingly boring powerpoint presentations...), which is reason alone to consider the breadth and depth approach exemplified in Bloom's model.

Taxonomy means 'a set of classification principles', or 'structure', and Domain simply means 'category'. Bloom's Taxonomy underpins the classical 'Knowledge, Attitude, Skills' structure of learning method and evaluation, and aside from the even simpler Kirkpatrick learning evaluation model, Bloom's Taxonomy of Learning Domains remains the most widely used system of its kind in education particularly, and also industry and corporate training. It's easy to see why, because it is such a simple, clear and effective model, both for explanation and application of learning objectives, teaching and training methods, and measurement of learning outcomes.

Bloom's Taxonomy model is in three parts, or 'overlapping domains'. Again, Bloom used rather academic language, but the meanings are simple to understand:

- Cognitive domain (intellectual capability, ie., knowledge, or 'think')
- Affective domain (feelings, emotions and behaviour, ie., attitude, or 'feel')
- Psychomotor domain (manual and physical skills, ie., skills, or 'do')

2. **The Cognitive Domain**

BLOOMS TAXONOMY

EVALUATION — Assessing theories; Comparison of ideas; Evaluating outcomes; Solving; Judging; Recommending; Rating

SYNTHESIS — Using old concepts to create new ideas; Design and Invention; Composing; Imagining; Inferring; Modifying; Predicting; Combining

ANALYSIS — Identifying and analyzing patterns; Organisation of ideas; recognizing trends

APPLICATION — Using and applying knowledge; Using problem solving methods; Manipulating; Designing; Experimenting

COMPREHENSION — Understanding; Translating; Summarising; Demonstrating; Discussing

KNOWLEDGE — Recall of information; Discovery; Observation; Listing; Locating; Naming

LEVEL	DEFINITION	SAMPLE VERBS	SAMPLE BEHAVIORS
KNOWLEDGE	Student recalls or recognizes information, ideas, and principles in the approximate form in which they were learned.	Write List Label Name State Define	The student will define the 6 levels of Bloom's taxonomy of the cognitive domain.
COMPREHEN-SION	Student translates, comprehends, or interprets information based on prior learning.	Explain Summarize Paraphrase Describe Illustrate	The student will explain the purpose of Bloom's taxonomy of the cognitive domain.
APPLICATION	Student selects, transfers, and uses data and principles to complete a problem or task with a minimum of direction.	Use Compute Solve Demonstrate Apply Construct	The student will write an instructional objective for each level of Bloom's taxonomy.
ANALYSIS	Student distinguishes, classifies, and relates the assumptions, hypotheses, evidence, or structure of a statement or question.	Analyze Categorize Compare Contrast Separate	The student will compare and contrast the cognitive and affective domains.

SYNTHESIS	Student originates, integrates, and combines ideas into a product, plan or proposal that is new to him or her.	Create Design Hypothesize Invent Develop	The student will design a classification scheme for writing educational objectives that combines the cognitive, affective, and psychomotor domains.
EVALUATION	Student appraises, assesses, or critiques on a basis of specific standards and criteria.	Judge Recommend Critique Justify	The student will judge the effectiveness of writing objectives using Bloom's taxonomy.

The most significant change to the Cognitive Domain was the removal of 'Synthesis' and the addition of 'Creation' as the highest-level of Bloom's Taxonomy. And being at the highest level, the implication is that it's the most complex or demanding cognitive skill–or at least represents a kind of pinnacle for cognitive tasks.

Objectives of the lecture: By the end of the lecture, the students should be able to know:

- The zone of proximal development
- Culture as a basic support
- Bruner vs Vygotsky's approaches

1. **Introduction**

According to Vygotsky, in order to solve any situation, the child uses language his eyes and hands to communicate that generates a real coordination between perception, language and action. This is the basic analysis of the specificity of the human behaviour. Accordingly both Vygotsky and Dewey agree language organizes our ideas and thinking whereas thought organizes our perception and actions. Thus, language and thought are the two main tools that determine the good achievement of an action. He believes that ideas are transmitted through generations and within the same society influenced by all the parameters that influence the behaviour of people. The entire cultural heritage is shared and transmitted through language either written or spoken as well as through science, technology and literature.

Bruner agrees totally with Vygotsky and believes that the most important zone in any learning process is ZPD. On the other hand, he believes that the innate capacities the child possesses at birth with are not enough and the social background is very important. The L.A.S.S is the system that helps the child in making investigations in his ZPD until he masters completely the linguistic system.

2. **Bruner and Education**

The aim is not to involve learners in culture through education.

On the contrary, education should make the learners participate in culture as well as to negotiate and react to its meaning that is a total contradiction of the traditional education which role is limited at transmitting knowledge and values and considers the one who knows more teaches those who know less through various techniques and mainly through language.

Language plays a very great role in the learning process. Bruner describes the works of Michael Halliday that he considers as the most complete. Halliday argues that the function of language goes through two major classes: pragmatics and mathematics. The former involves all the instrumental, interactional and personal functions. In short this class gathers all that enables the learner to distinguish himself from others and also to use language in order to obtain his needs by influencing others opinions and attitudes. (Michael A. K. Halliday, Learning how to mean (London: Edward Arnold, 1975)).

On the other hand, the latter gathers imaginative and informative functions as well as "heuristique". Accordingly, thanks to heuristique the learner obtains from others corrections and information, whereas the imaginative function enables us to go beyond the actual parameters in order to create new things and new worlds; the last function shows that not all people share the same opinions and do not possess the same data yet they are able to transmit it through communication or narration.

On the other hand, Bruner believes that a fourth function elaborated by Jackobson should be added that of metalinguistic. Metalinguistic consists of thinking about one language the way it is used and developed in order to be functional at different levels of communication and sciences as well as literature and history.

Nevertheless, the functions proposed by Halliday serve the great role language plays in general and particularly in the educational system. He considers that using language involves all the lexical and the grammatical parameters that function at the same time in order to enable the learner to grasp the learning process and strategies he is in contact with Roman Jackobson, Linguistics and Poetics », in Selected Writings, III (La Haye: Mouton, 1981).

On the other hand, through questions and dialogues, the teacher raises the interest of the learner and makes him part of his learning process. This motivation makes the child eager to learn and to give his opinion. As a result, the child shares the data he possesses with other members of his community that develops a social feeling of belonging to a group and intellectual abilities like negotiation, discovery, creativity and communication.

According to Bruner, language used in education must be an invitation to thinking and creation of culture and should not be abstract and objective dealing only with facts. Moreover, it should involve the learner in his learning by initiating him to argumentation and developing his metacognition.

Bruner views language with two facettes, the former is the means of communication and the latter a means to represent the world we live in and to describe it. That is to say, the way we speak tells a lot about what we think and the way we represent the topic we are dealing with and our attitude as well as negotiations are typical characteristics of our behaviour in the world we live in.

In short, Bruner considers that the role of language is not to transmit information; it rather creates knowledge and reality on the one hand and is part of this reality on the other hand. As a consequence,

the attitude one develops towards knowledge defines the personality and the self for if the learner is able to develop what Bruner names the reflexive intervention of knowledge, he will be able to use it in order to give an opinion or an argument. On the other hand, if the learner does not develop the reflexive intervention of the knowledge he is confronted to, he will not be able to act from an external point of view and thus he will be controlled by all the data he collects through time.

3. Vygotsky's Approach

The social experience is determined by the model of behaviour that corresponds to the situation and includes the body movements, intonation, dressing.. However the cultural artifacts, involve other parameters such as linguistic terms, instruments (chairs, tables computer, books..) and signs like giving a present at birthday. The first illustration given by Raner(1991) is the parents try to control how, where and when their child responds to an insult either by encouraging him or discouraging him and this determines the "kinds of intensity of emotion the child develops".

Meanwhile the second illustration concerns babies since when restricting their movements, parents inculcate passivity whereas giving them free expression develops active personalities. Adding to this, he says that "holding babies so that they face toward other people or toward individual caretaker similarly inculcates collective or individualistic self-concepts, respectively". Accordingly, our attitude in different situations is shaped by our emotional reaction for we become angry when a deliberate harm is felt for example. Hence all our actions and behaviours are activated by a stimulus and conditioned by our socio-cultural background as it is clearly exposed in the following diagram Ratner(1991 :173-4).

• Stimulus		motives	
• (Physical,		perception	
• Social,	sense	emotion	
• Individual)	Receptor	sensation	action
		recall	
		needs	
• Culture Tools	cognitive schemata (Knowledge, expectations, values)	cognitive schemata (knowledge, expectations, values)	

For more details figure one shows that culture, in all its parameters including tools, promotes the cognitive schemata either in a direct (written or oral instructions) or indirect way (religious values already acquired).the cognitive schemata in question, is directly conditioned by sensations, emotions, motives, needs and perception that shape the action in relation with the socio-cultural context. In this respect Vygotsky (1997) states:

Ultimately, for Man the environment is a social environment because even where it appears to be natural environment, nevertheless, in relation to man there are always definite social elements present… in this interaction with the environment man always makes use of his social experience. Vygotsky (1997b: 53-4)

The example used by vygotsky shows that the cognitive development is the result the child's problem solving experience that he achieves with another human being like his mother or caretaker. Hence the role of the adult is to transmit culture to the child through his mother tongue. That is to say culture is an important element that shapes the child's socialization as it is clearly classified by Doolittle

(1997: 83-103) when pointing out the works of vygotsky:

1. "Culture makes two sorts of contributions to a child's intellectual development. First, through culture children acquire much of the content of their thinking, that is, their knowledge. Second, the surrounding culture provides a child with the processes or means of their thinking, what Vygotskians call the tools of intellectual adaptation. In short, according to the social cognition learning model, culture teaches children both what to think and how to think.

2. Cognitive development results from a dialectical process whereby a child learns through problem-solving experiences shared with someone else, usually a parent or teacher but sometimes a sibling or peer.

3. Initially, the person interacting with child assumes most of the responsibility for guiding the problem solving, but gradually this responsibility transfers to the child.

4. Language is a primary form of interaction through which adults transmit to the child the rich body of knowledge that exists in the culture.

5. As learning progresses, the child's own language comes to serve as her primary tool of intellectual adaptation. Eventually, children can use internal language to direct their own behaviour.

6. Internalization refers to the process of learning--and thereby internalizing--a rich body of knowledge and tools of thought that first exist outside the child. This happens primarily through language.

7. Interactions with surrounding culture and social agents, such as parents and more competent peers, contribute significantly to a child's intellectual development."

Doolittle, in these seven points, summarises vygotsky's approach of the socio-cognition of the child. He argues that when acquiring culture, that develops and shapes the process of thinking, the child needs to be more involved in his social behaviour. This social insertion is achieved through interaction with others that starts at a very early age and confronts the child to different situation that he is supposed to adapt himself in and various experiences he is asked to solve. Hence, all these processes are taking place at the same time and are vehicled by the mother tongue.

In this same view Joan Kelly Hall (2002) refers in his book to the woks of Vygotsky, 1978, 1986 and those of Wertsch, 1991, and 1994. Both of them agree that knowledge, acquired from culture, assists the fulfilment of the different skills that make the child more capable element in his society. The knowledge acquired is clearly defined by Bruner (1983, 109) who does not consider it as thinking or as the outcome of the intellectual activities and experiments but as the "internalizing of tools that are used within the child's culture". He also considers that language is the key of knowledge for it is through words and symbols that what is felt and known is conveyed. Adding to this Burner (1983) states that language "is the primary way that concepts can be taught and questioned. It is also the increasing ability to deal with a variety of activities simultaneously and sequentially". Burner (1983:110)

8. In his definition, Bruner shows the importance of language in the development of knowledge that is a whole process that starts at birth and goes step by step till it reaches a high levels and degrees with the help of members of the family and peers

as it is stated Doolittle (1997: 83-103) when describing the works of vygotsky. A difference exists between what child can do on her own and what the child can do with help. Vygotskians call this difference the zone of proximal development.

9. Since much of what a child learns comes form the culture around her and much of the child's problem solving is mediated through an adult's help, it is wrong to focus

On a child in isolation. Such focus does not reveal the processes by which children acquire new skills.

Vygotsky makes a difference between what the child knows and is able to do on his own and the achievement that needs help. All the interferences, what the child knows and what he is about to know, takes places in as named by Vygotsky Zone of Proximal Development as defined in the following statement:

The ZPD is the distance between the actual development level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance or in collaboration with more capable peers. Vygotsky(1978.quoted in Hall 2002 :49)

When quoting vygotsky ,Hall (2002) raises an important elements in the socio-cognitive development since he refers to the zone of the mind where all the connections are made. This zone is the place where the already acquired experiment paves the way to the new ones for what the child is unable to realise today; he will be able to do it tomorrow. Tharp, R.G. & Gallimore, R. (1988) put a diagram where all these processes are mentioned:
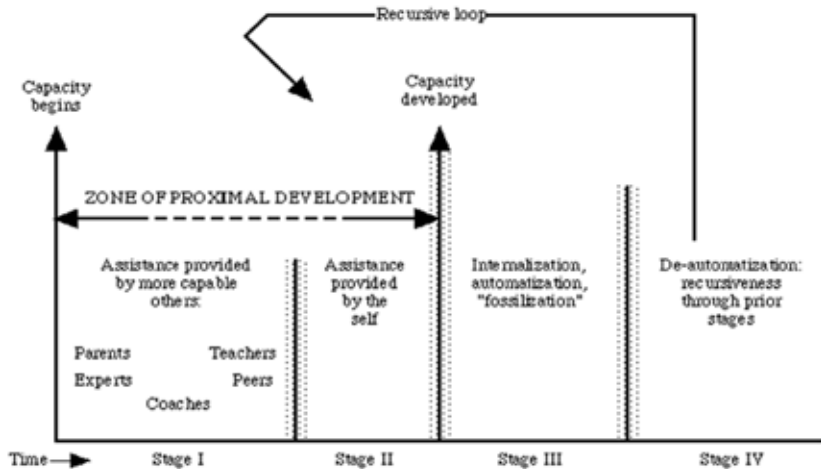
In the diagram above, Tharp & Gallimore (1988) explain the child's development by including the cultural influence and tools as well as the peers. The basic parameter in zpd is collaboration. Each time the child is confronted to a new Learning situation collaboration is needed as it is described by vygotsky p. 86, 1978 who considers "the distance between the actual developmental level as determined by independent problem solving and the level of potential development as determined through problem solving under adult guidance, or in collaboration with more capable peers."

Adding to this, the diagram refers to the second important point raised by Vygotsky that is internalization. Acquiring knowledge entails the combination of socio-cultural heritage as well as the contribution of peers or technology. All these processes are combined and automatically used to the identification and understanding of the new data that is internalized in order to be at hand when needed in another process. In fact, every new data paves the way to the next one.

With reference to the diagram, Vygotsky declares that acquiring knowledge goes through four stages. The first and the second ones take place in the zone of proximal development for when the child is in contact with new data his social environment including his parents; peers … assist him by giving him explanations for example. This takes place in the first stage whereas and the second one the child understands and starts to participate in the analysis by giving his own contribution to the situation. Nevertheless the process changes in the two last stages, it is no more a matter of assimilation but rather that of internalization. At the third stage the child internalizes what he has understood so that its meaning and use will be automatic and deeply rooted in his brain, meanwhile the last step is when the knowledge acquired becomes so clear and obvious for him that he uses it freely in a natural way. Thus what is the end of a whole process is transformed to the starting point of a new one.

Objectives of the lecture: By the end of the lecture, the students should be able to know:

- The difference between the notion of acquisition and learning
- The five hypothesis of Krashen

1. **Definition**

"Language acquisition does not require extensive use of conscious grammatical rules, and does not require tedious drill."

"Acquisition requires meaningful interaction in the target language – natural communication - in which speakers are concerned not with the form of their utterances but with the messages they are conveying and understanding."

"The best methods are therefore those that supply 'comprehensible input' in low anxiety situations, containing messages that students really want to hear. These methods do not force early production in the second language, but allow students to produce when they are 'ready', recognizing that improvement comes from supplying communicative and comprehensible input, and not from forcing and correcting production."

"In the real world, conversations with sympathetic native speakers who are willing to help the acquirer understand are very helpful"

2. **The Natural Approach (NA)**

The most striking proposal of the NA theory is that adults can still acquire second languages and that the ability to 'pick up' languages does not disappear at puberty. Thus, Krashen's contribution to Chomsky's LAD proposition is that adults follow the same prin-

ciples of Universal Grammar. The theory behind the NA implies that adults can acquire all but the phonological aspect of any foreign language, by using their ever-active LAD. What makes adults different from children is their abstract problem solving skills that make them consciously process the grammar of a foreign language. Therefore, adults have two paths to follow: Acquisition and learning.

3.   The Theoretical Basis of the Natural Approach

The Natural Approach is regarded as a comprehension-based approach because of its emphasis on initial delay (silent period) in the production of language. What is novel is that the NA focuses on exposure to input instead of grammar practice, and on emotional preparedness for acquisition to take place.

3.1 Theory of Language

Krashen regards 'communication' as the main function of language. The focus is on teaching communicative abilities. The superiority of 'meaning' is emphasized. Krashen and Terrell believe that a language is essentially its lexicon. They stress the importance of vocabulary and view language as a vehicle for 'communicating meanings' and 'messages'.

According to Krashen, 'acquisition' can take place only when people comprehend messages in the TL. Briefly, the view of language that the Natural Approach presents consists of 'lexical items', 'structures' and 'messages'. The lexicon for both perception and production is considered critical in the organization and interpretation of messages. In Krashen's view, acquisition is the natural assimilation of language rules by using language for communication. This means that linguistic competence is achieved via 'input' containing structures at the 'interlanguage + 1' level (i +1); that is, via 'comprehensible input'.

3. 2 Theory of Language Learning

"There are two independent ways of developing ability in second languages. 'Acquisition' is a subconscious process identical in all important ways to the process children utilize in acquiring their first language, ... [and] 'learning' ..., [which is] a conscious process that results in 'knowing about' [the rules of] language" (Krashen 1985:1).

The Acquisition-Learning distinction is the most fundamental of all the hypotheses in Krashen's theory and the most widely known among linguists and language practitioners).

3.2.1 The Acquisition-Learning Hypothesis

According to Krashen there are two independent systems of second language performance: 'the acquired system' and 'the learned system'. The 'acquired system' or 'acquisition' is the product of a subconscious process very similar to the process children undergo when they acquire their first language. It requires meaningful interaction in the target language - natural communication - in which speakers are concentrated not in the form of their utterances, but in the communicative act.

The 'learned system' or 'learning' is the product of formal instruction and it comprises a conscious process which results in conscious knowledge 'about' the language, for example knowledge of grammar rules. According to Krashen 'learning' is less important than 'acquisition'.

Krashen believes that the result of learning, learned competence (LC) functions as a monitor or editor. That is, while AC is responsible for our fluent production of sentences, LC makes correction on these sentences either before or after their production. This kind

of conscious grammar correction, 'monitoring', occurs most typically in a grammar exam where the learner has enough time to focus on form and to make use of his conscious knowledge of grammar rules (LC) as an aid to 'acquired competence'. The way to develop learned competence is fairly easy: analysing the grammar rules consciously and practising them through exercises. But what Acquisition / Learning Distinction Hypothesis predicts is that learning the grammar rules of a foreign/second language does not result in subconscious acquisition. In other words, what you consciously learn does not necessarily become subconsciously acquired through conscious practice, grammar exercises and the like. Krashen formulates this idea in his well-known statement that "learning does not became acquisition". It is at this point where Krashen receives major criticism.

3.0.0.1 The Natural Order Hypothesis

According to the hypothesis, the acquisition of grammatical structures proceeds in a predicted progression. Certain grammatical structures or morphemes are acquired before others in first language acquisition and there is a similar natural order in SLA. The average order of acquisition of grammatical morphemes for English as an 'acquired' language is given below:

-Ing--------Aux---------Irregular------Regular Past

Plural----->Article---->Past---------->3rd Sing.

The implication of natural order is not that second or foreign language teaching materials should be arranged in accordance with this sequence but that acquisition is subconscious and free from conscious intervention (Ellidokuzoglu, 1992).

3.0.0.2 The Input Hypothesis

This hypothesis relates to acquisition, not to learning. Krashen claims that people acquire language best by understanding input that is a little beyond their present level of competence. Consequently, Krashen believes that 'comprehensible input' (that is, i + 1) should be provided. The 'input' should be relevant and 'not grammatically sequenced'. The 'input' should also be in sufficient quantity as Richards pointed out:

".. child acquirers of a first language are provided with samples of 'caretaker' speech, rough - tuned to their present level of understanding, ..[and] adult acquirers of a second language [should be] provided with simple codes that facilitate second language comprehension."

(Richards, 1986:133)

3.0.0.3 The Monitor Hypothesis

As is mentioned, adult second language learners have two means for internalising the target language. The first is 'acquisition' which is a subconscious and intuitive process of constructing the system of a language. The second means is a conscious learning process in which learners attend to form, figure out rules and are generally aware of their own process. The 'monitor' is an aspect of this second process. It edits and make alterations or corrections as they are consciously perceived. Krashen believes that 'fluency' in second language performance is due to 'what we have acquired', not 'what we have learned': Adults should do as much acquiring as possible for the purpose of achieving communicative fluency. Therefore, the monitor should have only a minor role in the process of gaining communicative competence. Similarly, Krashen suggests three conditions for its use:

- there must be enough time;
- the focus must be on form and not on meaning;
- the learner must know the rule.

3.0.0.4 The Affective Filter Hypothesis

The learner's emotional state, according to Krashen, is just like an adjustable filter which freely passes or hinders input necessary to acquisition. In other words, input must be achieved in low-anxiety contexts since acquirers with a low affective filter receive more input and interact with confidence. The filter is 'affective' because there are some factors which regulate its strength. These factors are self-confidence, motivation and anxiety state.

The expression "language learning" includes two clearly distinct, though rarely understood, concepts. One involves receiving information about the language, transforming it into knowledge through intellectual effort and storing it through memorization. The other involves developing the skill of interacting with foreigners to understand and speak their language. The first concept is called "language learning," while the other is referred to as "language acquisition." These are separate ideas and we will show that neither is the consequence of the other.

The distinction between acquisition and learning is one of the hypotheses (the most important) established by the American Stephen Krashen in his highly regarded theory of foreign language learning. The concept of language learning is linked to the traditional approach to the study of languages and today is still generally practiced in high schools worldwide. Attention is focused on the language in its written form and the objective is for the student to understand the structure and rules of the language through the application of intellect and logical deductive reasoning.

Acquisition	Learning
• implicit, subconscious	explicit, conscious
• informal situations	formal situations
• uses grammatical 'feel'	uses grammatical rules
• depends on attitude	depends on aptitude
• stable order of acquisition	simple to complex order of learning
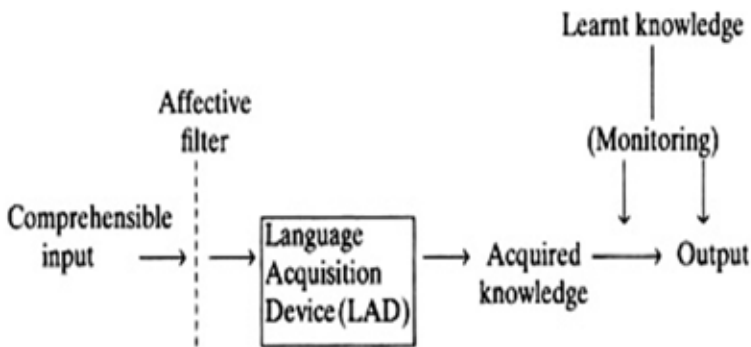
The Input Hypothesis Model of L2 learning and production (adapted from Krashen, 1982, pp. 16 and 32; and Gregg, 1984)

a. **Evidence for the Input Hypothesis (chiefly Krashen 1985a)**
- people speak to children acquiring their first language in special ways
- people speak to L2 learners in special ways
- L2 learners often go through an initial Silent Period
- the comparative success of younger and older learners reflects provision of comprehensible input

- the more comprehensible input the greater the L2 proficiency
- lack of comprehensible input delays language acquisition
- teaching methods work according to the extent that they use comprehensible input
- immersion teaching is successful because it provides comprehensible input
- bilingual programs succeed to the extent they provide comprehensible input

b.   **Affective-Humanistic Activities**
- dialogues – short and useful - 'open' dialogues
- interviews – pairwork on personal information
- personal charts and tables
- preference ranking – opinion polls on favourite activities etc
- revealing information about yourself – e.g. what I had for breakfast
- activating the imagination – e.g. give Napoleon advice about his Russian campaign

c.   **Problem-solving Activities**
- task and series – e.g. components of an activity such as washing the car
- charts, graphs, maps – e.g. busfares, finding the way
- developing speech for particular occasions – e.g. What do you say if …
- advertisements
- Games, e.g. What is strange about … a bird swimming?'
- Content activities, e.g. academic subject matter such as maths

Bibliography

Bibliography

- Ab Jalil, H. McFarlane, A. Ismail, I. A. Krauss, S. E. (2008). "Assisted Performance in Different Task Types of Online Discussion". In *European Journal of Scientific Research* Vol.22 No 3, pp.329-339

- Adamson, B. (2003). "Inductive Education". Retrieved from http://www.landmark.edu/institute/grants_research/biology_success/samples/inductiveded uctive.pd

- Allen, J. P. B. (1984). General Purpose Language Teaching: a Variable Focus Approach. Brumfit, C. J.

- Allen, J. P. B. and Corder, P. S. (1980). Reading for Applied Linguistics. Pligrims, Middlesex, England.

- Amokrane, S. A. (1987). Acquisition du Langage en Situation de Plurilinguisme. Unpublished Magister Thesis. Algers.

- Andrés, V. (1999). Self-esteem in the Classroom or the Metamorphosis of Butterflies. In Arnolds, J. (eds). Affect in Language Learning. Cambridge University Press, pp 87-124.

- Aoki, N. (1999). Affect and the Role of Teachers in the Development of Learner Autonomy. In Arnolds, J. (eds). Affect in Language Learning. Cambridge University Press, pp 142-154.

- April, M. S. and Mahon, M. C. (1999). Understanding Language Change. Cambridge University Press.

- Azmi, A. M. (2008). "The Effects of Deductive and Inductive Approaches of Teaching on Jordanian University Students' Use of the Active and Passive Voice in English". *College Student Journal*, 01463934, Part B, Vol. 42, Issue 2

- Baetens-Beardsmore, H. (1986). Bilingualism: Basic Principles. Clevedon, England: Multilingual Matters.

- Baker, P. N. (1975). "Nécéssité de l'Education Physique". In

l'Education et Devenir. Retrieved from http://www.educationet-devenir.fr/spip.ph

- Bandura, A. (1977). "Self-efficacy: Toward a unifying theory of behavioral change". In *Psychol. Rev, Vol* 84, pp 191–215.

- Bashook, P. G. (2005). "Best Practices for Assessing competence and Performance of the Behavioral Health Workforce". *Administration and Policy in Mental Health*, Vol. 32, pp 553-592.

- Belmekki, A. (2008). The Importance of Text Selection and Metacognitive Awareness-Raising in EFL Reading Strategies: The Case of First-Year Students at Abou Bakr Belkaid University-Tlemcen. Unpublished Doctorate Thesis

- Benramdane, F. (2011a). "Curriculum et Programme de Langues en Algerie: Modernité Pédagogique et Plurilinguisme". In *Le Français dans le Monde Recherches et Application: Curriculum, Programmes et Itiniraires en Langues et Cultures. CLE International*, pp 76- 90.

- Benramdane, F. (2011b). "Quand Dire, c'est etre…des Langues et du Partenariat Linguistique : le cas du Maghreb". In *Les Cahiers de l'Orient: Revue d'Etude et de Réflexion sur le Monde Arabe et Musulman.* Les Presse de Normandie Roto Impression s. a. s, pp. 146-154.

- Bernstein, B. (1970). Social Class Language and Socialization. in Language and Social Context (1982), pp 157-178. Pilgrims Books, London.

- Bernstein, B. (2003). Class Codes and Control: Theoretical Studies towards a Sociology of Language. Volume I, Routledge, London.

- Bhela, B. (1999). "Native Language Interference in Learning a Second Language: Exploratory Case Studies of Native Lan-

guage Interference with Target Language Usage". In *International Education Journal*, Vol 1, No 1. Retrieved from http://iej.cjb.net

- Borkowski, J. G. (1996). "Metacognition: Theory or chapter heading?" in *Learning and Individual Differences,* 8(4), pp391–402.
- Brakni, D. (2005). Stratégies Cognitives et Métacognitives en Compréhension Ecrite: Etude Longitudinale d'un Groupe d'Etudiants en Situation d'Anglais et de Français pour les Sciencienes et Techniques à l'Université de Blida.

Unpublished Doctorate Thesis.

- Breen, M.P. (1984) 'Process syllabuses for the language classroom'. In C.J. Brumfit (ed.) General English Syllabus Design. (ELT Documents No. 118, 47-60). London: Pergamon Press & The British Council.
- Britton, J. S. (1970). Language and Learning. Pilgrims Books, London.
- Brooks,G. and Brooks, M.G. (1993). In Search of Understanding: The case for Constructivist Classrooms. *American Society for Curriculum Development,* AESD.
- Brown, W. R. (2003). "Language and Categories". In *A Study of Thinking.* Bruner, J. S. Goodman, J. J. and Austin, G. A (eds). Transaction Publishers, New Brunswick, pp 247-265.
- Brualdi, A. (2013). "Implementing Performance Assessment in the Classroom". *Practical Assessment, Research & Evaluation*. ERIC/AE. Retrieved from http://pareonline.net/getvn.asp?v=6&n=2
- Bruer, J. T. (1997). "Education and the brain: A bridge too far". In *Educational Researcher, 26*(8), pp 4–16.
- Bruner, J. S. (1960). The Process of Education. Vintage Books a

Division of Random House, New York.

- Bruner, J. S. (1966). Toward a Theory of Instruction. Harvard University Press.
- Bruner, J. S. (1983). Savoir Faire, Savoir Dire. PUF.
- Bruner, J. S. (1985). Child's Talk Learning to Use Language. W. W. Norton § Company, NewYork.
- Bruner, J. S. (1996). "Culturalism or cultural psychology". Retrived from http://www.massey.ac.nz/~wwpapajl/evolution/assign2/BP/Bruner.html
- Bruner, J. S. (2004). Comment les Enfants Apprennent à Parler. RETZ.
- Bruner, J. S. (2006). In Search of Pedagogy: The Selected Works of Bruner, J. S. Volume I, Routledge Taylor§ Francis Group.
- Bruner, J. S. (2008 a). L'éducation, Entrée dans la Culture. Les Problèmes de l'Ecole à la Lumière de la Psychologie Culturelle. Les Presses d' EMD SAS, 53110 Lassay-les-Chateaux.
- Bruner, J. (2008b): Culture et Modes de Pensée: L'Esprit Humain dans ses Œuvres. Ed les presses de la Nouvelle Imprimerie Laballery – 58500 Clamecy.
- Bryant, P. and Nuñes, T. (2011). "Children' s Understanding of Mathematics". In Childhood Cognitive Development. Goswami, U. (eds). , The Wiley-Blackwell, pp 549-573.
- Chelli, S. (2010). "The Competency-based Approach in Algeria :A Necessity in the Era of Globalization". In *Letters and Socio-psychology journal*, volume VI, Biskra.
- Cheriet, A. (1983). Opinions sur la Politique de l'Enseignement et de l'Arabisation. El Hikma, Alger.
- Chomsky, N. (1971). Aspects de la Theories Syntaxique. Le Seuil, Paris.
- Chomsky, N. (1977). Réflexions sur le Langage. Maspero, Paris.

- Corder, S. P. (1985). Introducing Applied Linguistics. Pinguin Books, London.
- Corder, S. P. (1993): Introducing Applied Linguistics. Ed2, Penguin Books.
- Corder, S.P. (1975). Error Analysis, Interlanguage and Second Language Acquisition. In Language Teaching. Cambridge University Press, volume 8, Issue 04, pp 201-218.
- Coutu, D.L. (2002). The Anxiety of Learning. Harvard Business Review, Vol. 80, p 100. Retrieved from http://hbr.org/2002/03/the-anxiety-of-learning/ar/1
- Crandall, J. J. (1999). Cooperative Language Learning and Affective Factors Chapter Five Proposals. In Arnolds, J. (eds). Affect in Language Learning. Cambridge University Press, pp 226-246.
- Diener, C. I. and Dweck, C. S. (1978). "An Analysis of Learned Helplessness: Continuous Changes in Performance, Strategy and Achievement Cognitions Following Failure". In *Journal of Personality and Social Psychology*, 451–462.
- Dodson, F. (2009): Tout se Joue avant 6 Ans. Ed Nouvelles Editions Marabout.
- Doolittle, P. E. (1997). "Vygotsky's Zone of Proximal Development as a Theoretical Foundation for Cooperative Learning". In *Journal on Excellence in College Teaching*, pp 83-103.
- Dourari, A.(1985). Cours de Systémes Grammaticaux. Umpublished Thesis. University of Mouloud Mammerie, Tizi Ouzou.
- Dulay, H. Burt, M. and Krashen, S. (1982). Language Two. Pilgrim Books, London.
- Dunbar, C. (2004). Best Practices in Classroom Management. University Outreach & Engagement, Michigan State University.
- Durkheim, E. (2006). Education et Sociologie. Ed les ateliers de

Normandie Roto Impression s.a.s. 61250 Lonrai.

- Echevaria, J. Short, D. J. and Vogt, M. (2004). Making Content Comprehensible for English Language Learners. The SIOP Model. Boston: Allyn & Bacon.

- Elimam, A. (2006). L'exception Linguistique en Didactique. Dar El Gharb.

- Ellis, G. O. (1975). Maternal Language Styles and Cognitive Development. In Children and Language: Reading in Early Language and Socialization. Rogers, S. (eds). Oxford University Press, London.

- Ferguson, C.A. (1959). Diglossia. In Language and Social Context (1982). Penguin Modern Sociology Readings, pp 232-251.

- Fishman, J.A. (1969). The Sociology of Language. In Language and Social Context (1982). Penguin Modern Sociology Readings, pp 45-60.

- Flavell, J. (1979). Metacognition and cognitive monitoring. *American Psychologist,* 34, pp 906–911

- François, F. Hudelot, C. and Sabeau-Jouannet, E. (1984). Conduites Linguistiques chez le Jeune Enfant. *Le Linguiste*. PUF

- Gerard .F.M. (2006). "L'évaluation des acquis des élèves dans le cadre de la réforme éducative en Algérie". In *Réforme de l'éducation et innovation pédagogique en Algérie*. UNESCO – ONPS (eds)., pp 85-124.

- Geyss, R. (2006). Bilinguisme et Double Identité dans la Littérature Maghrébine de la Langue Française : Le Cas d'Assia Djebar et de Leïla Sebbar. Kultur Niederostereich.

- Giglioli, P. P. (1982). Language and Social Context. Penguin Modern Sociology Readings.

- Godfrey, B. (2010). Institunalising Continuous Assessment

in Primary Teacher Education: Continuous Assessment Hand Book and Guidelines for Tutors in Primary Teacher Education in Uganda. UNESCO

- Goldman, G. K. and Zakel, L. E. (2009). "Clarification of Assessment and Evaluation". *Assessment Update*, 21(3), 8-9.

- Goner, P. and Walters, S. (1978). "Inductive and deductive approach in TESOL." In Heinmann (1995). Teaching Practice Handbook Structures: Grammar and Function, pp. 129 - 138. *Pedagogy*. *The Modern Language Journal*. Vol. 74, No. 4, pp 451-458.

- Government of Ireland. (1999). Primary School Curriculum Introduction. Government Publications, Dublin.

- Grand Guillaume, G. (1983). Arabisation et Politique Linguistique au Maghreb. DG-P Maionneuve et Larose.

- Greffou, M. B. (1989). L'Ecole Algérienne de Ibn Badis à Pavlove. El Hikma, Alger.

- Grosjean, F. (1983). Life with two Languages: An Introduction to Bilingualism. Cambridge, Mass: Harvard University Press.

- Grosjean, F.(1993). Le Bilinguisme et le Biculturalisme: Essai de Définition. Laboratoire de Traitement du Langage et de la Parole. Université de Neuchatel.

- Gumperz, J.J. (1964). "Linguistic and Social Interaction in Two Communities". In *American Anthropologist*. Volume 66, Issue 6_PART2, pp 137–153,

- Hakuta, K. (1986). Mirror of Language: The Debate on Bilingualism. New York: Basic Books.

- Hall, J. K. (2002). Teaching and Researching Language and Culture. Pearson Education, Longman.

- Halliday, M.A.K. (1975). Learning how to Mean: Explorations in the Development of Language. Edward Arnold, London.

- Halliday, M.A.K. (2003). <u>The Language of Early Childhood</u>. Jonathan J. Webster, London.

- Harris, A. Morán, C. and Flórez, A. (2008<u>). Continuous Assessment to Support a Competency- Based Approach: Supporting Policy and Practice in the Case of El Salvador</u>. USAID from the American People.

- Harsen, G. H. (1999). Learning by Heart: a Lozanov Perspective. In Arnolds, J. (eds). <u>Affect in Language Learning</u>. Cambridge University Press, pp 211-225.

- Haugen, E. (1969). <u>The Norwegian Language in America: A study in Bilingual Behavior</u>. Bloomington, Indiana: University of Indiana Press.

- Haynes, C. C. (2010). "A Teacher's Guide to Religion in the Public Schools". In *The Modern Language Journal* Natilee Duning (eds). *First Amendment Center*.

- Hirtt, N. (2009). "L' approche par Competences: une Mystification Pédagogique". In *L'école Démocratique*, **n° 39. Retrieved from www.ecoledemocratique.org**

- <u>Hockett, F. C.</u> (1975). Linguistic Continuity. In Rogers, S. (1975). <u>Children and Language: Readings in Early Language and Socialization</u>. Oxford University Press.

- Hudelson, S. (1991). <u>Teaching and Children</u>. In Forum Information Agency Washington D. C. 5-6.

- Husdon, R. A. (1980). <u>Sociolinguistics</u>. Combridge University Press.

- Hymes, D. (1964). Toward Ethnographies of Communications: Analysis of Commnicative Events. In Language and Social Context (1982). Penguin Modern Sociology Readings, pp 21-44.

- Jackendoff, R. (1992). <u>Languages of the Mind: Essays on Mental Representation</u>. Bradford Book, the MIT Press, Cambridge

London.

- Jackobson, R. (1981): <u>Linguistics and Poetics, in Selected Writings</u>. Ed III La Haye: Mouton.
- Jay, B.T. (2002). <u>The Psychology of Language</u>. Prentice Hall PTR.
- Jiang, N. (2004). "Semantic Transfer and its Implications for Vocabulary Teaching in a second Language". In *The Modern Language Journal*, 88, pp 414-432.
- Kaufman, A. and Dodge, T. (2008). "Student Perceptions and Motivation in the Classroom: Exploring Relatedness and Value". *Springer Science and Business Media* B.V, Soc. Psycho Educ, pp101-112.
- Klein, W. (1996). Language Acquisition at different ages. In <u>Individual Development over the Lifespan: Biological and Psychosocial Perspectives</u>. D. Magnusson (Ed.), Cambridge: Cambridge University Press, pp. 88-108.
- Klein, W. (1997). <u>L'Acquisition de Langue Etangére</u>. <u>Armand Colin</u> (eds).
- Krashen, S. D. (1981). <u>Principles and Practice in Second Language Acquisition</u>. English Language Teaching series. London: Prentice-Hall International (UK) Ltd.
- Krashen, S. D. (1982). <u>Principles and Practice in Second Language Acquisition</u>. New York, Pergamon Press.
- Krashen, S. D. (1983). Krashen's Comprehension Hypothesis Model of L2 learning. Retrieved from http://homepage.ntlworld.com/vivian.c/SLA/Krashen.htm or
- http://ourworld.compuserve.com/homepages/JWCRAWFORD/Krashen3.htm
- Langacker, W. L. (1973). <u>Language and its Structures</u>. New York, Harcourt Brace.

- Larkin, S. (2010). Metacognition in Young Children. Routledge Taylor & Francis Group. London and New York.

- Lehall, H. and Mellier, D. (2007). Psychologie du Développement: Enfance et Adoléssance Cours et Exercises. Dunod, Paris.

- Looney, J. W. (2011), "Integrating Formative and Summative Assessment: Progress Toward a Seamless System"? Education Working Papers, No. 58, OECD Publishing. Retrieved from http://dx.doi.org/10.1787/5kghx3kbl734-en

- Maamouri, M. (1973). "The linguistic situation in independent Tunisia". American journal of Arab Studies, I, pp50-56.

- Mallet, P. Meljac, C. Baudier, A. and Cuisinier, F. (2007) : Psychologie du Développement Enfance et Adolescence. Belin éditions.

- Mann, D. (2009). Vygotsky's Zone of Proximal Development. Retieved from http://etec.ctlt.ubc.ca/510wiki/Vygotsky%27s_Zone_of_Proximal_Development

- Marçais, W. (1930). La Diglossie Arabe. In L'enseignement public (1993). Paris : Librairie Delagrave, pp 401-409.

- Martinet, M.A. Raymond, D. and Gauthier. C. (2001). Teacher Training: Orientations Professional Competencies. Gouvernement du Québec Ministère de l'Éducation,

- McInerney, D. M. and Liem, A.D. (2008). Motivation Theory and Engaged Learning. In Towndrow, A. P. Koh, C. Soon, T. H. (eds), Motivation and Practice for the Classroom, Sense Publishers Rotterdam, Taipei, 11-36.

- Messaoudi, A. (2010). "Réforme du Système Educatif : Les Raisons de l'Echec". In Le Soir d'Algerie. Retireved from http://www.lesoirdalgerie.com/articles/2010/03/29/article.php?-sid=97794&cid=34

- Miliani, M. (2003). "La Dualité Français-arabe dans le Système

Educatif Algérien". In *Education et Sociétés Plurilingues* n°15.

- Miliani. M. (2010). "Betweeen Enduring Hardships and Fleeting Ideals". In *Mediterranean Journal of Educational Studies*, Vol. 15(2), pp. 65-76,
- Ministry of Education. (1984). Ways and Times of Teaching. National Office of School Publications.
- Ministry of Education. (2003). El Mannahidj: The First Year of the Primary School. National Office of School Publications.
- Ministry of Education. (1966). Teacher's Guide. National Office of School Publications.
- Ministry of Education. (1998). Programme de Français: 1ere Langue Etrangère. National Office of School Publications.
- Ministry of Education. (2005). Civic Education: The First Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). Geography: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). History: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). Mathematic Activities: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). Mathematics: Cinquième Année Primaire. National Office of School Publications.
- Ministry of Education. (2007). Mon Livre de Français: Troisième Année Primaire. National Office of School Publications.
- Ministry of Education. (2007). My Book of Arabic Language: The First Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). My Book of Arabic Language: The Fifth Year of the Primary School. National Office of School

Publications.

- Ministry of Education. (2007). Religious Education: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2007). Science and Technology Education: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2009). Cahier d'Activité: Cinquième Année Primaire. National Office of School Publications.
- Ministry of Education. (2009). Mon Livre de Français: Cinquième Année Primaire. National Office of School Publications.
- Ministry of Education. (2010). Arabic Language Activities: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2010). Mathematic Activities: The Fifth Year of the Primary School. National Office of School Publications.
- Ministry of Education. (2012). Pedagogic Guide of the third year's Textbook of French. National Office of School Publications.
- Myers, R. and Landers, C. (1989). Preparing Children for Schools and Schools for Children. UNESCO, Paris.
- National Council for Curriculum and Assessment (2004). Assessment in Primary Schools. NCCA Draft Document.
- Nelson, K. L. and Price, K. M. (2007). Planning Effective Instruction. Belmont, CA: Thomson Wadsworth
- Nunan, D. (1988). Syllabus Design (Language Teaching: A Scheme for Teacher Education). Callan, C. N. and Widdowson, H. G. Oxford University Press.
- Organization of American States (2006). Assessment in Compe-

tency Based Education. NCVET, Jamaica.

- Oxford, R. L. (1999). Anxiety and the Language Learner: New in Sights. In Arnolds, J. (eds). Affect in Language Learning. Cambridge University Press, pp 58-65.
- Palinscar, A. M. and Brown, A. L. (1984). "Reciprocal teaching of comprehension-monitoring activities". *Cognition and Instruction,* pp 117–175.
- Perrin, M. P. (1999). "Le Plus View Métier du Monde n'est pas celui qu'on Croi"t. In Des Articles sur l'Education, pp 6-13. Retrieved from http://www.cairn.info/disc-sciences-de-l-education.htm
- Piaget, J. (1948). "To Understand is to Invent". In *The Future of Education*. New York, Grossman,Viking Press.
- Piaget, J. (1952). The origins of intelligence in children. New York: International Universities press.
- Piaget, J. (1994). "Cognitive Development in children: Piaget Development and Learning". In *Res. in Sci. Teaching*, 1964, pp 176-186.
- Piaget, J. (2005). The Language and Thought of the Child. Routledge, London and New York.
- Pinker, S. (1996). Language Instinct. Harper Collins
- Pitman, J. A. Bell, E. J. and Fyfe, I. K. (2000). "Assumptions and Origins of Competency-Based Assessment: New Challenges for Teachers". In The conference of the Australian Association for Research in Education, and the New Zealand Association for Research in Education, Melbourne. Queensland Board of Senior Secondary School Studies.
- Ratner, C. (1991): Vygotsky's Sociohistorical Psychology and its Contemporary Applications. Retrieved from http://www.sonic.net/~cr2/sociohis.htm

- Retrieved from http://www.languageimpact.com/articles/rw/krashenbk.htm
- Ringbom, H. (2007). "The Importance of Cross-linguistic Similarities". In *The Language Teacher: Special Issue: Language Transfer.* JALT (eds). Volume 3, pp 3-6.
- Robinett, B. W. and Schacheter, J. (1991). Second Language Acquisition. Ann Arbor, the University of Michigan Press.
- Roegiers, X. (2006). "L'APC dans le Système Éducatif Algérien". In *Reforme de l'Education et Innovation Pédagogique en Algérie.* UNESCO (eds), pp51-84
- Saussure, F. (1995). Cours de Linguistique Général. Edition Payot et Rivages.
- Schütz, R. (2007). "Stephen Krashen's Theory of Second Language Acquisition". In English Made in Brazil. Retrieved from http://www.sk.com.br/sk-krash.html
- Sebane, M. Miliani, M. (2009). "Les Politiques Linguistiques et Educatives et leur Impact sur les Compétences Langagières des Etudiants : Le Cas du Français en Algérie". In *Terres de FLE* n° 2 , pp. 119-123.
- Simatwa, E. M. W. (2010). "Piaget's Theory of Intellectual Development and its Sloan Communication Program". In *Constructing a Logical Argument*. MIT OpenCourseWare (2012).
- Skutnabb-Kangas, T and Phillipson, R. (2005). Education through the Medium of the Mother-Tongue: The Single Most Important Means for Saving Indigenous Languages. *Rationales and Strategies for Establishing Immersion Programs* drawn from A Symposium on Immersion Education for First Nations. St. Thomas University and The Assembly of First Nations. Fredericton, N.B. Canada. Retrieved from www.educatorsforimmersion.org

- Sloan Communication Program. (2012). "Constructing a Logical Argument". MIT OpenCourseWare, Available in http://ocw.mit.edu, or http://ocw.mit.edu/terms

- Sorace, A. Hey cock, C. and Shillcock, R. (1999). Language Acquisition: Knowledge Representation and Processing. Elsevier Science Ltd..

- Stead, R. Nevill, M. (2010). "The Impact of Physical Education and Sport on Education Outcomes". *A Review of Literature. Institute of Youth Sport School of Sport, Exercise and Health Sciences*. Loughborough University

- Stern, H. H. and Carrooll, B. (1969). Languages and the Young School Child. Oxford University Press, London.

- Stevick.W. E. (1999). Affect in Learning and Memory: from Alchemy to Chemistry. In Arnolds, J. (eds). Affect in Language Learning. Cambridge University Press, pp 43- 57

- Storck, H. (1986): L'Enfant de 3 à 6 ans. ESF (eds). Parie.

- Surgenor, P. (2010). Teaching Toolkit: Summative & Formative Assessment. UCD Teaching and Learning/ Resources. www.ucd.ie/teaching

- Taleb Ibrahimi, K. (1995). "L'arabisation, lieu de conflits multiples". In Maghreb-Machrek, pp 52 -72. Retrieved from

- Taleb Ibrahimi, K. (1995). Les Algériens et leurs Langues. El Hikma, Alger.

- Taleb Ibrahimi, K. (1997). "L'Arabisation, Lieu de Conflits Multiples". In Collectif *Réflexions. Elites et questions identitaires*. Alger : Casbah Éditions, pp 49-63.

- Taleb-Ibrahimi K. (1998). "De la Créativité au Quotidien, le Comportement Langagier des Locuteurs Algériens". In *De la didactique des langues à la didactique du plurilinguisme*. Université de Grenoble 3, pp. 291-298.

- Terrell, T. D. (1977). "A Natural Approach to Second Language Acquisition and Learning". in *The Modern Language Journal*, 61, pp 325-37.
- Terrell, T. D. (1982). "A Natural Approach to Language Teaching". In *The Modern Language Journal,* 66, pp 121-32.
- Tharp, R. and Gallimore, R. (1988). "Teaching Mind in Society: Teaching, Schooling, and Literate Discourse". In Moll, L. C. (eds). (2003). In *Vygotsky and Education, Instructional Implications and Applications of Sociohistorical Psychology*, pp 175-203.
- Tomioka, T. (2007). "The Silent Period Hypothesis". SANNO Junior College. Retrieved from http://homepage3.nifty.com/park/silent.htm.
- Trudgill, P. (1974). Sociolinguistics an Introduction. Penguin Books, London.
- Turky, R. (1985). El Chikh Abdelhamid Ben Badis. University Press, Alger.
- Vygotsky, L. (1997). Pensée et Langage: La Dispute. SNEDIT, Paris.
- Vygotsky, L. S. (1967). Language and Thought: The Problem and the Approach. In *The Psychology of Language, Thought and Instruction.* Holt Rinehart and Wilson, I.N.C. USA, pp 56-60.
- Vygotsky, L. S. (1987). Thinking and speech (N. Minick, Trans.). In R. W. Rieber & A. S. Carton (Eds.), The collected works of L. S. Vygotsky: Vol. 1. Problems of general psychology. New York: Plenum Press, pp. 39 - 285. (Original work published 1934)
- Vygotsky, L.S. (1978). Mind and society: The development of higher mental processes. Cambridge, MA: Harvard University Press.

- Widdowson, H.G. (1980). Explorations in Applied Linguistics. Oxford University Press.
- Wilson, R. (2010). "A Summary of Stephen Krashen's Principles and Practice". In Second Language Acquisition.
- Witty, E. and Gaston, B. (2008). "Competency Based Learning and Assessment". ETITO. Retrieved from https://moodle.org/pluginfile.../Assessment_-_Competency_based.doc
- Woldehanna, T. (2011). "The Effects of Early Childhood Education Attendance on Cognitive Development: Evidence from Urban Ethiopia". Paper for the CSAE Conference 2011 on Economic Development in Africa at St Catherine's College, Oxford.
- Wolf, A. (2001). "Competence-Based Assessment". In Raven, J. and Stephenson, J. (eds), New York. Competence in the Learning Society, pp 453-466. Retrieved from www.heacademy.ac.uk
- Woolfolk, A. (2005). Educational Psychology. Alyn & Bacon, Ninth Edition.Boston .
- www. You tube. Jeromebruner.flv
- Younie, W. J. (1974). Instructional approaches to slow learning. Teachers' College P. New York.

Webography
- *JohnQPublik, 2007: cognitive_linguistics.txt)*
- (http://en.wikipedia.org/wiki/Euclid)
- (http://en.wikipedia.org/wiki/Jacques_Mehler)
- (http://en.wikipedia.org/wiki/Kabyle_language)
- (http://en.wikipedia.org/wiki/Quran)
- (http://encyclopedia2.thefreedictionary.com/Xbox)
- (http://giftedkids.about.com/od/glossary/g/iq.htm)
- (http://ilabs.uw.edu/institute-faculty/bio/i-labs-andrew-n-meltzoff-phd)

- (http://plato.stanford.edu/entries/goodman-aesthetics
- (http://psp.about.com/od/pspglossary/g/pspdef.htm)
- (http://psychology.about.com/od/memory/f/long-term-memory.htm)
- (http://www.arabic-keyboard.org/arabic/arabic-alphabet.php)
- (http://www.medterms.com/script/main/art.asp?article-key=15299)
- (http://www.medterms.com/script/main/art.asp?article-key=7143)
- (http://www.medterms.com/script/main/art.asp?article-key=7143)
- (http://www.pcmag.com/encyclopedia_term/0,1237,t=Wii&i=57388,00.asp)
- (wikipedia.org/wiki/Frederick_the_Great)
- http:///www.educatorsforimmersion.org
- http://doc.sciencespo-lyon.fr/Signal/index.php?r=article/view&id=242130
- http://en.wikipedia.org/wiki/Abdelkader_El_Djezairi
- http://en.wikipedia.org/wiki/Ahmed_Bey_ben_Mohamed_Ch%C3%A9rif
- http://en.wikipedia.org/wiki/Albert_Einstein)
- http://en.wikipedia.org/wiki/Gemination
- http://en.wikipedia.org/wiki/Lalla_Fatma_N%27Soumer
- http://en.wikipedia.org/wiki/Mecca
- http://en.wikipedia.org/wiki/Medina
- http://en.wikipedia.org/wiki/National_Liberation_Front_%28Algeria%29
- http://en.wikipedia.org/wiki/Sunnah
- http://en.wikipedia.org/wiki/Syringa
- http://en.wikipedia.org/wiki/Traditional_education

- http://en.wikipedia.org/wiki/Uthman_ibn_Affan
- http://encyclopedia2.thefreedictionary.com/Geneva+School)
- http://math.about.com/od/mathhelpandtutorials/a/Understanding-Classification-Of-Numbers.htm
- http://math.about.com/od/mathhelpandtutorials/a/Understanding-Classification-Of-Numbers.htm
- http://medical-dictionary.thefreedictionary.com/magnetic+resonance+imaging
- http://searchmobilecomputing.techtarget.com/definition/iPod)
- http://www.dltk-teach.com/rhymes/snowwhite/story.htm
- http://www.eurojournals.com/ejsr.htm.
- http://www.glottolog.org/resource/reference/id/126478.xhtml
- http://www.infoplease.com/ce6/sci/A0860568.html
- http://www.islamswomen.com/articles/asma_bint_abu_bakr.php
- http://www.muslim.org/islam/anwarqur/ch106.htm
- http://www.muslimaid.org/ramadan-2012/case category/zakat?gclid=COmekIinobUCFYe9zAodsQMAmw
- http://www.thefreedictionary.com/rule+of+three
- http://www.webopedia.com/TERM/I/iPad.html
- https://en.wikipedia.org/wiki/Wilayah