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Educational Psychology



1. Introduction

The field of Educational Psychology (EP) was founded by several pioneers in psychology just before the start of the twentieth century. One of those pioneers was William James (1842-1910). Soon after launching the first psychology textbook, *Principles of Psychology* (1890), he gave a series of lectures called *Talks to Teachers* (James, 1899) in which he discussed the applications of psychology to educating children. James argued that laboratory psychology experiments often cannot tell us how to effectively teach children. He argued for the importance of observing teaching and learning in classrooms for improving education. One of his recommendations was to start lessons at a point just beyond the child's level of knowledge and understanding in order to stretch the child's mind.

A second major figure in shaping the field of EP was John Dewey (1859-1952), who became a driving force in the practical application of psychology. Dewey established the first major educational psychology laboratory in the United States, at the university of Chicago in 1894 and among his revolutionary writings were 'The School and the Society' (1899) and 'The Child and the Curriculum' (1902). In his view, John Dewey tried to clarify the relationship between the school and society and described what, according to him, an ideal school should look like. He proposed that school as an institution should not be viewed as a "small version" of society, but should be considered as a simplification of the existing social life. Furthermore, Dewey called for knowledge to all members of the society ,i.e., education was no longer exclusive to any social class or ethnic group and it became the necessity for social development.

Two other contributors in the field of EP were the American Jerome Seymour Bruner (1915-2016), and the Russian Psychologist Lev Semenovitch Vygotsky (1896-1934). Bruner and his colleagues developed the concept of Scaffolding which is a process in which support is provided to an individual so that he or she can complete a task that

could not be completed independently. The support is smoothly removed when the individual starts to show understanding and mastery of the task at hand. The concept of scaffolding was based on Lev Vygotsky's Zone of Proximal Development (ZPD). Vygotsky described the ZPD as the distance between the actual developmental level where independent problem solving occurs and the potential developmental level where problem solving can occur with the guidance of an adult or more knowledgeable peer. Key to the ZPD is social interaction and collaborative problem solving. Thus, the ZPD bridges the gap between what an individual can learn and do independently and what he or she can learn and do with support. The scaffolding process in education bears similarities with the traditional definition of scaffolding, which is a temporary framework that supports workers and materials until a building is constructed or repaired to stand on its own. When scaffolding is used in instruction, learners receive support as needed and then the support is gradually removed as they achieve independence in task mastery.

Of course there are other psychologists who have challenged the field of EP and have had their words in the shaping of the different learning theories: John Broadus Watson (1878-1958) the founder of Behaviourism; Ivan Pavlov (1849-1936) with his classical conditioning; Edward Thorndike (1874-1949) and his puzzle boxes resulting in the Law of Effect theory; and Burrhus Frederic Skinner (1904-1990) the developer of Operant Conditioning; Benjamin Bloom (1913-1999) with his taxonomy of levels of learning domains; Howard Gardner (1943) and his Multiple Intelligences theory; and the Swiss psychologist Jean Piaget (1896-1980) with his cognitive development theory. Needless to say that not all of these psychologists are going to be detailed in this handout as this is only a one semester course and time constraints will certainly not permit it, still students might do their own knowledge expansion about the above mentioned concepts and Psychologists by referring to the further readings section which will be proposed by the end of the course.

2. Main Learning Theories

Psychologists do commonly agree upon the fact that students are not alike and that no two individuals learn the same way. Psychologists concluded through their countless attempts of finding out how students learn that the human brain is characterized by its uniqueness and each individual's personal experiences do shape the way one learns. This is why teachers and would be teachers should be trained in such a way to be ready to classroom daily teaching, and a very crucial part of teacher education is being knowledgeable about the different learning theories and ways of learning.

Yet, the various learning theories differ from each other and, according to (Seifert and Sutton, 2009), the most common theories mostly stress upon two domains, either on changes in behavior or thinking. Though it is difficult to limit them to these two criteria, it is helpful to start presenting the learning theories at this level so that students/would-be teachers would have a broad idea about what the main principles of learning are and how the beliefs shaping them could help teachers cope with their everyday teaching/learning situations. To make this clearer, let's consider behaviorism which focuses on learning which takes place thanks to changes in behavior, and constructivism, as the one which fosters changes in thinking.

This latter, may even be divided into two sub categories: psychological constructivism which describes learning as a result to personal experiences and social constructivism as changes in thinking which take place thanks to assistance from others. These are two very simplified versions of what comes in the following chapter which will present behaviorism and constructivism.



2.1 Behaviourism

Behaviourism is a learning theory which initially drew its principles from the experiments done on laboratory animals and then transferred to human subjects. This learning theory stresses upon the observable behaviour of children and the changes in behaviour that take place while learning occurs. Behaviourists define learning as 'the acquisition of a new behaviour, or the modification of behaviour as a result of teaching, training or tutoring'(Woollard, 2010,p:1). Learning is shown through the behaviour of learners in their actions or reactions to additional stimuli. This learning theory had had a big impact on education in the early twentieth century up to the mid-1970s when the appearance of Constructivism come into inter play in educational circles. As stated before, many psychologists took part in the shaping of this learning theory, its types, principles and characteristics. Within this chapter, we will present the two main trends of behaviourism, classical/respondent conditioning and operant conditioning.

2.1.1 Classical/ Respondent Conditioning

Generally speaking, respondent conditioning refers to the involuntary responses to particular sensations such as sights and sounds (Lavond,2003).When I come face to face with an unfamiliar dog in an unexpected place, my heart rate shoots up, I tremble and my legs cannot lift my weight anymore. However, whenever a little baby with his parents in a public place looks at me, I automatically smile in response. In both cases I have no control over my behavioral responses. Amazingly, these involuntary responses, not necessarily the above stated examples, are not only human specific but can be observed with animals, too. Just as humans do, a bird in a cage, a cat laying comfortably in its couch, or even a Lion in an animal park, would invariably react in the same way to the sudden loud noise, they all will show a startle response, try to find out the source of the noise and stay on the safer side on their guards for a while.





These involuntary responses phenomena were first studied systematically by the Russian scientist Ivan Pavlov (1927). Pavlov who initially was a biologist interested in studying how enzymes are involved in facilitating the digestion of food through the digestive system, later on shifted his attention towards studying an unexpected behaviour developed by his laboratory dogs while trying to collect saliva by means of an experimental tube fixed to the side of dogs' mouths.

In fact, Pavlov's aim was to discover what caused saliva to flow. So, he rerouted the saliva to the outside of his dog's cheek so that he could collect and measure the spittle. He might have thought that the production of saliva is the result of fixed nervous reflexes like a knee jerk. After taking many measurement of spittle, he confirmed that dogs drooled automatically when their tongues touched food. He called the response the salivation reflex. But his work started to run into trouble as his dogs became familiar with this experimental routine, the dogs started to fill the spittle collecting tubes before Pavlov had a chance to stimulate their tongues and thus he noticed that the animals were learning to anticipate food and that was going to make him shift his research interests and discover what was later on going to be labeled 'respondent conditioning' which is sometimes also called classical conditioning due to the fact that it was the first form of conditioning which was studied systematically. To confirm his observation and start his new study, Pavlov erected screens so that to keep the dogs apart and prevent them from seeing what was going on on the other side of the screens. Yet, before passing meat through the hatch, Pavlov introduced a stimulus that was totally unrelated to feeding, a ticking metronome. At first the dog dripped saliva into its cheek tube only when the food appeared, but after a number of trials the dog began to connect the ticking with the arrival of meat. Soon the sound alone made the dog drool. Eventually, the dog salivated as much to the ticking itself as it did originally to the presentation of food. Pavlov called this new response *the conditioned reflex*. Whatever the stimulus (bell, light, classical music....) his dogs could soon be conditioned to produce

saliva. Pavlov believed that he had discovered how animals learnt even for those living in the wild. He at the same time came out with different concepts related to those different stimuli and their respective responses. These are shown in the representation below:

Before Conditioning:

(Unconditioned Stimulus) Food → Salivation (Unconditioned Response)

(Neutral Stimulus) Bell → No response

During Conditioning:

(Neutral Stimulus) Bell + Food → Salivation

After Conditioning:

(Conditioned Stimulus) Bell only → Salivation (Conditioned Response)

To have a clearer insight of these concepts, suppose you have a dog named Hunter before any conditioning. At the beginning Hunter salivates (Unconditioned Response UCR) only after it takes its meal (Unconditioned Stimulus UCS). As time goes by, however, a neutral stimulus- such as the sound generated by dog food bags- is usually associated with the eating experience. Through time, this neutral stimulus causes Hunter to salivate even before tasting any food, or even if the bag contains a toy for your little baby. At this time the neutral stimulus (bag's sound) is called a conditioned stimulus (CS) and the original response is labelled a conditioned response (CR). Now after conditioning, Hunter might salivate at the sound of any large bag, regardless of its content, and might develop other conditioned responses beyond salivation, as following you around the rooms, walking by your side and even looking at you with soft eyes.

Thus, Pavlov assumed he had discovered that like animals, children learn by association or what some early behaviourists also called temporal contiguity. A baby may notice that when the doorbell rings, a person will come into the house. Because the bell's ringing and the appearance of the person in the house take place simultaneously, the child is said to learn by





association. But, how could this view of learning be transferred to classroom and should teachers do to facilitate learning in the classroom.

2.1.1.1 Features of Classical Conditioning

a- Generalisation: When Pavlov first did his experiment on dogs in the laboratory he noticed that other neutral stimuli were also able to trigger in the dogs salivation when dogs began to pair them with food. The same as your dog Hunter begins to associate the sound made by any bag you bring home to its own food though what in the bag is sometimes just a toy to your little brother or a birthday gift to your mother. Psychologists name this process generalization or the likelihood for similar stimuli to give birth to a given conditioned response. Altogether with kids in school, generalisation does happen very often in situations where the learners pair a neutral stimulus such as the smiles of a teacher to his well-being in class with other teachers. Learners generally display generalizations mainly when they are younger.

A very cited example of generalization is that of 'Little Albert', which was conducted by John B. Watson and Rosalie Rayner (Watson and Rayner, 1920). In this experiment a toddler (Little Albert) is presented with the following classical conditioning paradigm. First, a white lab rat was shown to the toddler. Little Albert had no emotional response to the rat but rather showed some interest to playing and petting the little white animal. Then, after a set of sessions, the presence of the rat was paired with a very loud noise. Upon the presence of noise, Little Albert would show some symptoms of fear and cry. Eventually, the mere presence of the rat in the laboratory elicited Little Albert fear. Interestingly, Little Albert also began fearing other neutral stimuli such as hamsters, rabbits, a white bunny toy, and even a white fur coat. This study is another example and evidence of the generalization phenomenon.

b- Discrimination: On the other hand, discrimination happens when individuals respond to certain stimuli but not to others (McSweeney et.al.2014). A classroom example of



discrimination is a learner who has learnt to be anxious during a Math test, but is able to remain relaxed during a history or an English test.

e- Extinction: This feature does not refer to the extinction of an animal species but is still related to the disappearance of a conditioned response because of the disappearance of the conditioned stimulus. Let's take again the example stated above where the novice learner has a harsh and unfriendly teacher who sowed in the learner a feeling of discomfort that generated the conditioned response which is hating to come to school. Imagine that same teacher had to change the school for some reason and is replaced by another teacher who is more friendly and careful with his little pupils. The pupil will keep the same conditioned response with this new teacher as he transfers the behaviour of the first teacher to the second one. Yet, by time that conditioned response starts to extinguish until it disappears as the learner no more associates the harshness of the first teacher to his presence in the classroom. Eventually, the same phenomenon takes place if the conditioned response is a positive one when a gentle teacher is being substituted by one who is less friendly and is harsh with his pupils in classroom.

2.1.1.2 Classical Conditioning in Schools

Who of us does not remember his first day at school and the feelings one had while coming into that place where everything was unfamiliar and that nothing resembled the comfortable safe 'cocoon' one came out from. Lucky were the kids who had a nice person who came in that room furnished with small sitting chairs and tables and talked gently with a soft voice and asked his pupils about their names, their fathers, mothers, siblings and things that alleviate the contextual shock they found themselves abruptly in. Usually, these little kids are in a hurry to go back to school the next day to meet again that person who welcomed them with a wide smile at the entrance of the class while rowed in pairs with their small bags on their backs. Gradually, the joy of seeing that teacher becomes associated with school and whenever being in school the kids are happy because they know they will meet that person becoming their source of



joy. Sadly, the reverse is true, for kids who during their first day at school had a harsh teacher who ill-treated them and sowed in their little souls the feelings of fear and frustration. Both categories of kids will have different attitudes towards school because they were conditioned by the teacher who was in the beginning a neutral stimulus and who later on became a conditioned stimulus who generated a conditioned response which either is enjoying or hating being in school. This is a very simple example of classical conditioning one may encounter in school with kids and even teenagers in middle schools and secondary schools.

The examples described in these two situations give us insights about how learners' attitudes are affected in schools, and therefore also their motivation to learn. In the first positive situation, the novice learner becomes more willing to please the teacher and shows his readiness towards sitting for his lectures; while for the second situation, the opposite occurs.

Teachers' behaviour in the previously described examples is very important to know and consider since they have a direct impact on learners' attitude about school and consequently on their motivation to learn. In the first described context, the child is more willing to come to school and may pay more attention to what his teacher is presenting in class. However, in the second context, the opposite is more likely to happen. Thus, as the changes in attitude take place 'inside' the individual learner, they are considered to be one way how children acquire intrinsic motivation as compared to extrinsic motivation. Yet, scholars argue that Classical conditioning can affect students' intrinsic motivation in a positive or a negative way and that is explained by the features shaping it and that are described above.

2.1.2 Operant Conditioning

Instead of focusing on associations between stimuli and behaviours, operant conditioning is rather concerned with on how the effect of consequences impact on behaviours. The operant model of learning (sometimes referred to as instrumental conditioning) is a method of learning that takes place via rewards and punishments for behaviour and a consequence for that behaviour. For example, when a laboratory rat presses a green button, he receives food as a



reward, but when he steps on the red button he receives an electric shock. Consequently, the experimental animal is more likely to press the green button and avoids the red one because of their respective consequences.

Yet, operant conditioning is not only related to studying the behaviour of laboratory animals, but also has an important role in everyday learning. Reinforcement and punishment occur almost every day and everywhere in informal as well as in formal settings such schools and universities.

In what comes next we are going to have a close view on how operant conditioning came into the psychology scenery and how it is used to change old behaviours, usually undesirable, to teach new desirable ones.

2.1.2.1 History of Operant Conditioning

Operant conditioning was coined by the American behaviourist Burrhus Frederic Skinner (1904-1990), that is why the concept is also sometimes referred to as **Skinnerian conditioning** (Cherry, 2019). B.F Skinner is the 20th century preeminent psychologist who had a great contribution in the field of psychology. He came up with the idea that if psychology is to be a science, it cannot study anything that is not directly observable. Skinner did not deny the existence of the brain, but he argued that if one wanted to be a real scientist, one would never try to study the mind because that is, for him, like a black box that cannot directly be perceived, what can be seen directly was behaviour, and this is the most important sort of concept that he came out with thanks to his experiments which measured animals' responses while being reinforced. So, the idea is a very simple one, if you want to increase some behaviour in someone, let's say a positive behaviour like 'helping', what you need to do is to make sure that you give him reinforcement every time he does that behaviour, a smile or a cookie might be enough in some situations and with certain subjects.

Skinner's work was based on Thorndike's (1898) **Law of Effect**. According to this type of learning, behaviour that is followed by pleasant consequences is likely to be done again, and

the one which is followed by an unpleasant one is less likely to take place again. Thus, Skinner introduced a new term into the Law of Effect - Reinforcement. Behaviour which is reinforced tends to be repeated (i.e., strengthened); behaviour which is not reinforced tends to extinguish.

Skinner did his experiments mostly on Laboratory rats. He first fed them for many days until they gained weight and then starved them for long hours and put them in a cage, called a skinner box, that contained nothing except a lever and a small container just big enough to hold a small quantity of food (see exhibit 1). At first the rat would wonder around the cage at random, but soon after would come close to the lever and eventually happen to touch or press on it. The lever would release food, which the rat would eat. Eventually, the rat would stay closer to the lever and presses it again and again, getting more and more pellets of food. Skinner, assumed that the animal had "discovered" that receiving food goes through pressing the lever. Skinner named the changes in the rat's behaviour an example of operant conditioning, and attributed special names to the different parts of the process. He called the **food pellets** *the reinforcement* and **the lever-pressing** *the operant* (because it "operated" on the rat's environment)

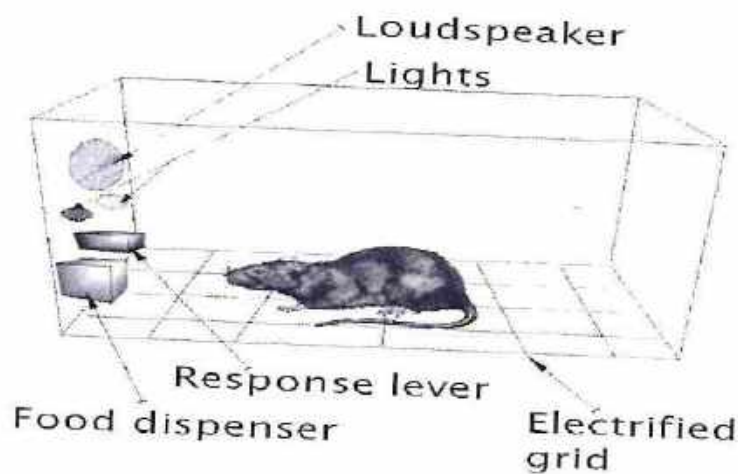


Exhibit 2.1: A Skinner box model (Retrieved from Google Image)

Similar to what we have seen with classical conditioning, operant conditioning also tells us how human beings learn and mainly with learners in schools. There are many classroom examples which show the effect of consequences on learners' behaviours.

Indeed, how to apply operant conditioning in classrooms is very simple. According to (Honig, 1966), when a certain kind of behaviour (labelled an operant) is followed by a stimulus (usually called a reward or technically a reinforcer), that behaviour is likely to happen again and again as far as the stimulus is there. In this situation the operant is said to have been reinforced. The only concern of the teacher will be then to select the behaviour to be monitored and the appropriate stimulus to be applied. Theoretically, the reinforcer can boost the behaviour over time, or more exactly its occurrence rate.

2.1.2.2.1 Positive reinforcement

Operant conditioning takes place when a response to a stimulus is reinforced in a positive way.

Let's remind the reader about the main principles governing this type of conditioning as put forward by John Woollard:

- the reinforcer must follow the response;
- the reinforcer must follow immediately; and
- the reinforcer must be contingent on the response. (2010, p.65)



John Woollard (2010) believes that the rate at which new behaviours are learned can all be impacted by the timing, magnitude, and consistency of reinforcement. Three areas are said to be the sources of this classroom reinforcement and which are as follow: intrinsically from the learner's self-motivations, extrinsically as part of the mechanisms of teaching and extrinsically as a result of the direct and personalised actions of the teacher. All three are important aspects of the behaviourist pedagogy and they are illustrated in Figure 2.1. The conditioning is usually sustained whenever the association between the stimulus and response is rewarded (reinforced), and therefore there are more chances that the response will occur even when the reward is removed.

Woollard (2010) believes that the intrinsic reinforcers are harder to control; nevertheless they have a great impact on the reinforcement process. Woollard (2010) argues that if association between the stimulus and the positively reinforced response is paired up by the two kinds of

motivation, the intrinsic one like satisfaction, and the extrinsic teacher's reward of praise or approval, then in this case the satisfaction reinforce is more likely to continue to motivate the learner even if the extrinsic reward has ceased to exist.



Figure 2.1: Classroom conditioning through reinforcement: adopted from (John Woollard, 2010,p.65)

The impulse responses made by learners can bear insightful signs for instructors to guess whether or not a type of stimulus is likely to generate a response enough adequate for establishing and sustaining learning. A response generated by fear or anger is not a positive reinforce, and the stimulus might not reinforce learning.

The environmental reinforcements are the systems made available in class which systematically play the role of reinforcers. Systematic reinforcement can be fostered through

available classroom teaching resources. Clearly defined outcomes should always be identified and communicated to learners in all kinds of teachings. The outcomes of the planned learning or the behavioural objectives should be sequenced and should reflect the results of a task analysis of the curriculum.

2.1.2.2.2 Behaviour reinforcement through Shaping

Among the various ways of reinforcing a desired behaviour is shaping. This technique consists of reaching a complex behaviour through different stages of approximate behaviours. Shaping takes place by first reinforcing a behaviour that looks like the behaviour we want the learner to perform. More reinforcements are applied for each close behaviour performed by the subject under focus. It goes without saying that only the similar behaviours are reinforced.

Let's take as an example learning to ride a bicycle to clarify the shaping process. Usually we learn to ride a bicycle thanks to some extrinsic reinforcement of success provided by a father, a mother or an older brother, but the most extrinsic reinforcement that impacts our learning and keeps us trying to cycle again and again is the bicycle itself when it keeps upright while we are sitting safely on its saddle. Yet, any clumsy behaviour such as pressing on the brakes too quickly is usually followed by an unwanted punishment. When we first try to ride a bicycle, we start doing it as novice riders, and it is through the process of successive approximations (shaping) that we reach the level of competent and self-confident cyclists.

Some behaviourists consider shaping as a process which evolves just in the same way Darwin looks at the evolution of species (Baum, 2005). For Darwin, evolution does not have a predetermined end point but is a process of an on-going change in response to the environment. Likewise, learners are in a constant development of their skills (and some skills vanish during development) due to the reinforcement impacts taking place.

During the process of conditioning, the consequences of behaviour affect future probability of that behaviour demonstrations. Thorndike (1874/1949) and Skinner (1904/1990) have shown that reinforcement (also known as reward) strengthens a behaviour, i.e., increases its frequency,





whereas punishment weakens a behaviour, i.e., decreases its frequency. Reinforcement can also be distinguished as primary/secondary and intrinsic/ extrinsic.

2.1.2.2.3 Positive and Negative Reinforcement

Reinforcement is generally a stimulus whose application leads to the empowerment of an exhibited behaviour. An organism, after a series of connected presentations of behaviour-reward, pairs up a given behavioural action with a desired outcome and is motivated to repeat it in the future. When desired consequences occur, the reinforcement is said to be positive. However, when negative reinforcement is applied, it usually lead to the removal of unwanted behaviour. A positive reinforcement involves the introduction of a stimulus that raises the frequency of occurrence of a behaviour (e.g. a rat pressing a lever in a Skinner box to receive food). Negative Reinforcement, however, leads to a decrease of the frequency of an unwanted behaviour because it aims at the removal of an unpleasant stimulus (e.g. deactivating a car sound buzzer by putting on the seat belt.).

2.1.2.2.4 Primary and Secondary Reinforcement

Primary reinforcers have the capacity to innately reinforce behaviour (Powell et al. 2017), they are also labelled by unconditioned reinforcers. They satisfy an existing, biology related need or desire (e.g., food, water, oxygen...etc), require no previous learning, and are primordial for our physiological and psychological well-being.

Secondary reinforcers, also known as conditioned reinforcers, are generally neutral stimuli at first and then turn into conditioned ones because of repeated association with other reinforcers like: praise, good grades, gifts, money...etc) (Powell et al. 2016).

2.1.2.2.5 Intrinsic and Extrinsic Reinforcement

Intrinsic reinforcement can be behind maintaining a wanted behaviour as reading for leisure, practising sport, writing or researching. While learning, this intrinsic reinforcement can be the exciting feeling of success, pride or discovery learning (Ormrod 2016). Whereas extrinsic reinforcement is the kind of reinforcement that is caused by consequences that are external to the



organism. They may be material as money and gifts; social such as a smile, consideration, attention or praise; or positive feedback like teacher's comments on learners' progress, or good grades.

Seifert (2009) claims that the extrinsic reinforcement is usually more easily noticeable than the intrinsic one. This may lead us to think, he argues, that the operant conditioning is a sort of "bribery in disguise", and that practically that only the external reinforcements operate on learners' behaviours.

2.1.2.2.6 Positive and Negative Punishment

Punishment generates a given behaviour frequency decrease as it is paired up with an unpleasant outcome. In positive punishment, a particular behaviour is followed by a presentation of an unpleasant stimulus (e.g., a spank for a child after he has misbehaved). In negative punishment, a pleasant stimulus is removed (a child is not allowed to practise his hobby because he has not completed his homework). Yet, many problems have been raised with the use of punishment, and it should be avoided or at least used very attentively as it may generate strong emotional responses, aggression, or even resistance to the teacher's or parents' expected behaviour.(Powell et al. 2016).

Hewett, 1968 stated that 'Punishment is a dead-end since its effects run straight into the teeth of major educational goals. If one gets a child to sit quietly or read because they are afraid not to do so, one is a long way from achieving the oft-stated goals of self-discipline and self-directed learning'.

Vargas goes further into the question by saying that it is even 'Worse than not being fair to the learner who is, after all, doing what circumstances produced, punishment disrupts further progress. The harmful effects of punishment can be hard to eliminate' (2009: 178).Thorndike's law of effect states that the likely recurrence of a response is generally determined by its consequence or impact upon the individual whether that is positive (rewarding) or negative (punishing). A negative response weakens reinforcement and makes the recurrence less likely.



2.1.2.2.7 The Behaviourist Teacher

This part of the text will present some strategies that the behaviourist teachers usually adopt to meet the needs of their learners. In the behaviourist classroom some, or all, of the following approaches to encouraging learning will be evident. The teacher will:

- have clearly structured the learning intention and outcomes (task analysis);
- make use of activities that stimulate, motivate and reward the pupils (positive reinforcement);
- observe and record positive and appropriate responses in the beginning (baselining);
- make explicit the expected outcomes and behaviours (SMART targets);
- reward achievement in a systematic and fair way (token economy);
- enter into agreements to support pupils' learning (contracts);
- provide the appropriate opportunities for pupils to be in alternative places (sanctuary); and
- set a good example in terms of physical appearance and behaviour and in terms of cognitive rehearsals (modelling). (Adopted from John Woollard 2010, p.93)

2.1.3 Summary

The behaviourist movement has a long history and has influenced many areas of education. The major aspects of behaviourism are classical conditioning and operant conditioning. In behavioural learning theory under the paradigm of operant conditioning, the consequences of behaviour serve as guidance for future behaviour. When behaviour is followed by pleasurable consequences, reinforcement occurs and the behaviour is strengthened in the future. When behaviour is followed by aversive consequences, punishment occurs and the behaviour is weakened. Reinforcement and punishment are further distinguished by whether a stimulus is added (resulting in positive reinforcement and positive punishment) or removed (resulting in negative reinforcement and negative punishment).

The stimulus, response and consequence model underpins the concepts of conditioning and behaviour modification that drives the pedagogic processes. These have resulted in a number of educational strategies among which are the following ones:

- behaviour that is positively reinforced will more readily reoccur (enabled by direct and indirect rewards);
- intermittent reinforcement is particularly effective (enabled by scheduling);
- learning experiences should be presented in small amounts (identified through task analysis);
- so that the responses can be reinforced and complex objectives achieved (enabled by shaping);
- reinforcements generalise across similar stimuli producing secondary conditioning;



2.2 Constructivism

Constructivism is an ancient concept which might have roots in the works of the 18th century philosopher Giambatista Vico, who claimed that human beings can only clearly understand what they have constructed, themselves. He also explained that one only knows something if he himself can explain it. Another famous philosopher, Immanuel Kant, further developed this idea by claiming that human beings are not passive containers of information. Yet, more prominent supporters of constructivism include John Dewey, Jean Piaget, Jerome Bruner, von Glaserfeld and Vygotsky have contributed deeply and wholly into the development of the concept and have left their own specific finger prints in this learning theory.

According to Candy (1991) constructivism proposes that knowledge cannot be taught but only learnt (that is, constructed), it is something "built up by learners" (Glaserfeld and Smack 1974 cited in Thanasaulos, 2000). In the same line of thought, language learning does not involve internalizing sets of learning, structures and forms; each individual learner brings his own knowledge to bear on the target language or task at hand. As Bruner (1966) states "...students would better learn and retain concepts they discover on their own instead of passively through rote learning and lectures." (p.33). Bruner rooted his pedagogy in Piagetian and Vygotskian principles and extended the work of Vygotsky by employing the concept of Scaffolding.

Thus, during the previous chapter we have seen that models of learning based on behaviourism might give us insights on how to influence what learners do, but educators do



usually want to know what students are thinking and how they can bring improvements on their thinking. One way of achieving this objective is doing it through the learning theory 'Constructivism', which is a view on learning that focuses on how learners actively construct knowledge out of experiences. Models of learning under this theory question the quantity of knowledge that learner constructs independently in comparison to the quantity of cues he takes from the more competent individuals who are in the approximate zone of his own development (Fosnot,2013). These two trends of thoughts are behind the coining of psychological constructivism and social constructivism which are going to be detailed in the what comes below.

2.2.1 Psychological Constructivism

Psychological constructivism is generally referred to by individuals mentally organizing or reorganizing newly confronted information or lived experiences. The organization takes place while relating new experiences to prior knowledge that already has a meaning and is understood by the individual learner. Put as it is, individual constructivism is most often related to the American philosopher and psychologist John Dewey (1916) who believes that education stands on action. Knowledge, he believes, emerges from situations where learners extract it from experiences that have meaning for and are important to them. This situation is bound to a social context, such as in school classrooms where learners build knowledge together while creating small communities.

Yet, in spite of the fact that the concept '*constructivism*' was not specifically used in his writings, Dewey made very explicit its implication for educators. He explained, for instance, that if learners learn through knowledge construction, then it is a must for teachers to elaborate curricula that fit students' prior knowledge and needs as much as possible. He commented that the curriculum should have a direct relationship with life beyond the school ,i.e. students should construct knowledge that is important for them to be used later on when they leave school. This view to school knowledge may practically seem like good common sense to educators



nowadays, but they were very innovative and progressive at the beginning of the twentieth century.

In fact, we owe many important ideas to John Dewey that we have adapted into teaching today. First, we owe to him the view of the child as an active learner. Before Dewey, it was believed that children should sit quietly in their seats and passively learn in a rote manner. In contrast, Dewey believed that children learn best by doing. Second, we owe to Dewey the idea that education should focus on the whole child and emphasize the child's adaptation to the environment. Dewey believed that children should not be narrowly educated in academic topics but should learn how to think and adapt to a world outside school. He especially thought that children should learn how to be reflective problem solvers. Third, we owe to Dewey the belief that all children deserve to have a competent education. This democratic ideal was not in place at the beginning of Dewey's career in the latter part of the nineteenth century, when education was reserved for a small portion of children, many of whom were issued from wealthy families. Dewey was one of the influential psychologist-educators who pushed for a competent education for all children- girls and boys, as well as children from different socioeconomic and ethnic groups.

John Piaget, the Swiss Psychologist, came out with a more challenging view to psychological constructivism through his theory of cognitive development that we will see in the chapter concerned with 'Development'. In his theory, Piaget tried to demonstrate that learning is an interplay between two mental activities that he labelled assimilation and accommodation. (Piaget, 2001). Assimilation is the interpretation of new information in terms of pre-existing concepts, information or ideas. A child who already understands the concept of 'bird' might initially identify any flying thing, such as butterflies or mosquitoes, with the term 'bird'. Assimilation is in a way identical to the concept of generalization in operant conditioning. In the theory of Piaget, however, a mental representation for an object or an experience is being transferred rather than just a behaviour (Skinner's "operant" in operant conditioning).



Assimilation works in parallel with accommodation, which is the modification of pre-existing concepts in terms of new experiences or new information. The little child who generalizes any flying object to be a bird, will later on revise the concept to consider only some types of flying objects such as swallows or a canaries and not others, like drones or butterflies. Up to Piaget, these two concepts (assimilation and accommodation) work hand in hand to develop the child's thinking and to generate what Piaget named cognitive equilibrium, which is a kind of balance between relying on the prerequisite and openness to the unknown or what Piaget called new information. This ever-growing repertoire of mental representations for objects and experiences is further explained by Piaget and he considers that every mental representation as a schema. He explained that a schema is a mixture of vocabulary, actions, and experience related to the concept. A child's schema for bird, for example, embodies not only the appropriate verbal knowledge (defining the word "bird"), but also the child's experiences with birds, pictures of birds, and conversations about birds. As assimilation and accommodation about birds and other flying objects operate together over time, the child adds and remembers relevant new experiences and actions. From these collective revisions and additions the child gradually constructs general new schemata about birds, butterflies, and other flying objects. In general terms, Piaget might then consider that "the child has learned more about birds".

The basic principle of constructivism is that an individual brings explanations to events, objects and perspectives from his/her own mental structures, beliefs and experiences. People construct their understanding and knowledge of the world through experiencing things and reflecting upon those experiences. For instance, when we face a new situation, we have to compare it with our former ideas and experiences and thus we may change our beliefs or reject the new information as irrelevant. Thus, following this flow of thought, knowledge is constructed and not reproduced. The constructed knowledge is personal and individualistic, and this is an adaptive process thanks to which we understand the world through our experiences. (Cole, 1992).



2.2.2 Social Constructivism

One of the most prominent contributors who has helped to shaped our understanding to constructivism is Lev Vygotsky (1896-1934). In spite of the fact that his ideas were not known while he was alive, they became so later on when his books '**Thought and Language**' and '**Mind in Society**' were translated into English. His thoughts were the basis upon which social constructivism was developed and which puts forward the importance of social interaction and culture to help the learner construct knowledge and learn. Up to Vygotsky, individuals construct knowledge while interacting each other. Thus, he considers learning as a human product that is socially and culturally constructed.

The following conversation between the two school pupils (P1 and P2) going back home from school exemplify very well how pupils construct knowledge while exchanging their respective understanding of what a 'rainbow' is and thanks to their negotiation of meaning they constructed their understanding to the rainbow phenomenon. Her is the conversation:

P1: Look! There is a beautiful rainbow in the horizon.

P2: Yes I see. But why is there a rainbow?

P1: Because it just rained.

P2: But I only see a rainbow when it is sunny.

P1: You are right there must be sun.

P2+P1: So, we need sun and rain for a ruinbow!

2.2.2.1 Vygotskyan Theory

Underlying Vygotsky's peer learning theory is the belief that human beings are social by nature, and thus, human cognition develops first through social interaction. That is, a child is born into a certain society and learns about its world, including social conventions and cultural knowledge, through participation in experiences constituted within that world. This belief has led Vygotsky to formulate the general law of cultural development, which states that any function in the child's cultural development appears in two zones. "First, it appears in social zone between



people as an inter-psychological category, and then on the psychological zone within the child as an intra-psychological category."(Vygotsky, 1981)

The inter-psychological dimension or the social zone indicates that learning first takes place between a child or a novice and a more capable peer (or peers). This dependent nature of learning is transformed to something more independent (i.e., intra-psychological) at a later phase. For instance, young children might be largely dependent on other individuals, most probably parents, in the early stages of development. As they grow, however, they gradually become less dependent on others, because they become more capable of achieving things by themselves.

Development occurs as a novice or a child and an adult or a more capable peer engage in dialogic interactions in which the more capable participants guide the learners in accomplishing specific tasks. Through their regular interactions over time, learners internalize the skills and abilities needed to be able to function independently. This shift from inter-psychological to intra-psychological zones is referred to as "regulation" (ibid). The use of language in this process is key to learning and development. In examining foreign language from a socio-cultural perspective, we are looking at language as both a product and process of social interaction.

Vygotsky considers the development of human being as a socio-genetic process through which children master cultural tools and signs while interacting with members in their surroundings. These others are often more competent and help children to understand and use in the suitable manner, the tools and signs that are important in the cultural group they live in. This process of interaction between the child and a more competent other is said to affect development if the interaction occurs within the child's ZPD.

Vygotsky (1978) defines the 'ZPD' as: "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". What children can do with the assistance and help of others is more beneficial to their mental development than while working alone.

Vygotsky developed two levels of development based on his beliefs that learning is a collaborative process influenced by culture. The level of **Actual Development** which is the level that the learner has already reached. It is the level where the learner can take his learning at hand without the help of any other, i.e., the level where he is able to work independently. However, the level of **Potential Development** is the level of development that learners are not capable of doing at the moment but have the potential to do so in the future. Between the actual and the potential levels, Vygotsky explains, there is what he calls the **Zone of Proximal Development (ZPD)**. The three levels may be clarified as shown below:

- (a) what learners can do alone (Actual)
- (b) what learners can do with help (ZPD)
- (c) what learners cannot do yet (Potential)

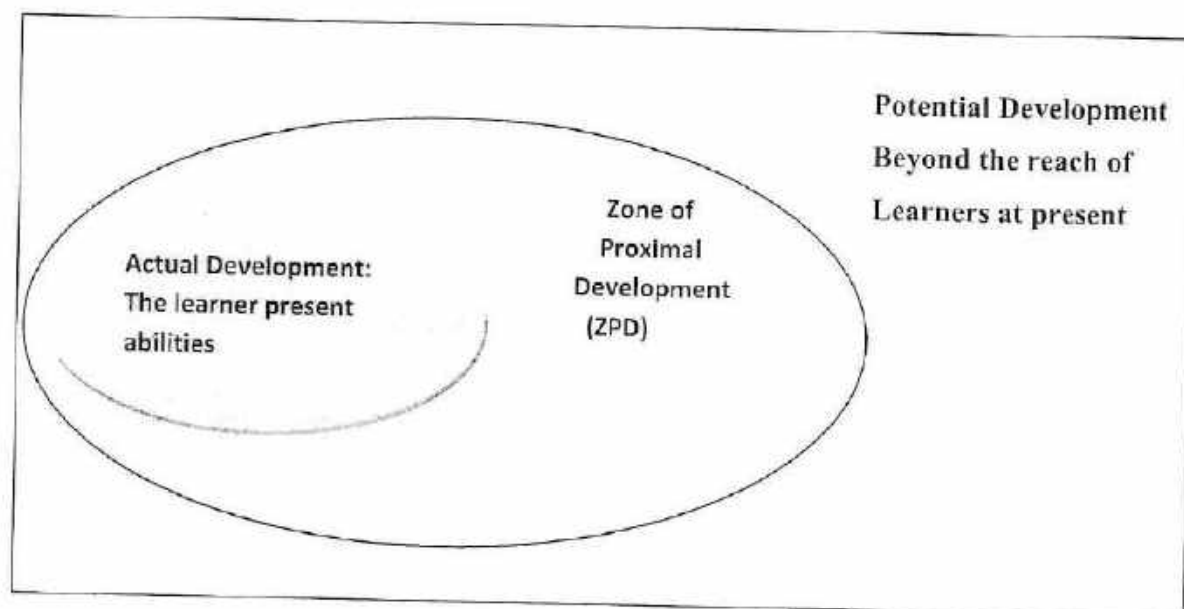


Figure 2.2: Zone of proximal development (Adapted from Open University Malaysia

December 2012, HMEF5043)



The ZPD embodies a concept of readiness to learn that emphasizes upper levels of competence. These upper boundaries are constantly changing in the learner's increasing independent competence. That is to say, what a learner can perform today with assistance will be able to perform tomorrow independently. Thus, getting him ready for entry into a more demanding collaboration.

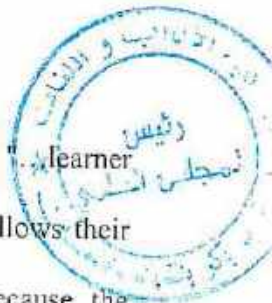
The ZPD defines those functions that have not yet matured but are in the process of maturation; functions that will be ready tomorrow but are actually in an embryonic state. These functions could be considered the 'buds' or 'flowers' of development rather than the 'fruits' of development (Roediger & Marsh, 2005). Vygotsky explained how a teacher or a more advanced peer might provide the explanation to enable a child to reach a higher level of achievement with support.

2.2.2.2 The Scaffolding Concept

Conversely to Piaget's view to constructivism which is rather individually oriented, Jerome Bruner (1960), the American psychologist, explicitly stressed on the importance of interactions between a learner and a more competent other. He indeed came out with the argument that students could learn more than what they were traditionally able to do as far as they are given the right guidance and resources. He labelled such support **instructional scaffolding**. Literally a scaffold is a temporary framework used in constructing a building that permits a much stronger structure to be built within it.

The concept of scaffolding relates to Vygotsky's ZPD theory. In the literature scaffolding has been defined as follows: "...in social interaction a knowledgeable participant can create, by means of speech, supportive conditions in which the novice can participate in, and can extend skills and to higher levels of competence." (Donato, 1994:40)

The concept of scaffolding has been introduced to foreign language learning contexts as well. For a long time, the focus was on teacher learner interaction. However, recently attention has turned to processes of scaffolding in learner-learner interactions. This is what Little (1991)



explains while mentioning the importance of scaffolding in language learning "the learner autonomy theory requires language teachers to create an interactive dynamic that allows their learners access to full range discourse roles in the target language. This is because the development of communicative proficiency depends directly on sustained involvement in genuinely communicative behaviour, beyond the minimal contribution to which frontal teaching methods traditionally confine learners"(p.29).

3. Human Development

The concern to study children is not a new one as it goes back to ancient Greece where very prominent thinkers wrote about it. The aim behind their studies was the same as nowadays researchers; they indeed wanted to guide people become better care givers to ameliorate children's well-being and to understand human nature. They managed to raise issues which continue to be of interest up to now.

3.1 Early Philosophers' Views to Child Development

Among the most ancient prominent recorded studies and ideas about children's development were those belonging to Plato and Aristotle. These two Greek philosophers devoted most of their intellectual efforts to studying how nature and nurture impacted children's development. Plato and Aristotle believed that the future welfare of societies is between the hands of well-educated children. It, thus, was very essential for both of them to give utmost importance to children's upbringing as these latter's basic nature would otherwise drive them to rebellion. Yet, Plato considered the upbringing of boys as a real challenge for parents and teachers:

"Now of all wild things, a boy is the most difficult to handle. Just because he more than any other has a fount of intelligence in him which has not yet run clear," he is the craftiest, most mischievous, and unruliest of brutes."

(Laws, bk. 7, p. 808,Cited in Saito)

Aristotle went along with Plato's idea that discipline was necessary, but he was more interested in joining child-rearing to the needs of the individual child.



What differs the two philosophers is that Plato believes in the innateness of knowledge in children, i.e. they are born with it. However, Aristotle thought that all knowledge is generated by experience and he compared the mind of an infant to a blackboard on which nothing is written.

Yet, centuries later, the French philosopher Jean-Jacques Rousseau (1712–1778) put more stress on parents and society as a whole and how their role to best foster children's development.

Not the least, The English philosopher John Locke (1632–1704), like Aristotle, considered the child as a *tabula rasa*, or blank slate, whose development is totally impacted by the type of nurture the parents and the society imprint on him. He theorised that the premium objective in a child's raising-up is the character growth. To fulfil this objective parents have to mediate good models of honesty, stability, and gentleness. They also have to avoid spoiling the child mainly at early age. However, while reason and discipline are installed, authority should be alleviated as far as their age, discretion, and good behaviour could allow it . . . The sooner you treat him as a man, the sooner he will begin to be one. (Cited in Borstelmann, 1983, p. 20)

Conversely to Locke's beliefs about early discipline, Rousseau claimed that parents and society should grant children more freedom at early ages. He hypothesised that children learn from their unpremeditated interactions with their environment, rather than through parents' or teachers' instructions. He even went further in his claims by suggesting that children should not have formal education until by the age of 12, when they reach "the age of reason" where they can evaluate by themselves the value of what they read and are told.

Although elaborated very long ago, these philosophical trends of thoughts continue to fuel the debates of many contemporary scholars, like whether children should receive explicit instruction or an implicit one where they discover knowledge by themselves.

Other concerns which have triggered scholars thoughts are why should we care about children's development in general and that of learners in particular and what the difference between development and learning is.



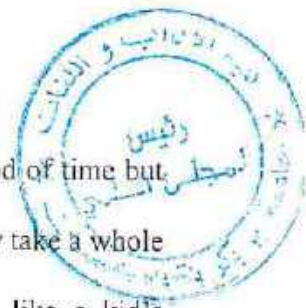
3.2 Human Development Defined

Human development is a concept generally used to refer to the changes that occur from conception to death. The term, however, should not be paired up with all the changes but only with those that come up in a certain order and last for a long time. As a good example to this definition let's consider a little boy named Karl who has been given piano lessons with a steady pace from his childhood. Altogether he attended piano lessons for 13 years since he was 4 until 18 years old with only very rare interruptions as when he was ill or when he went on holiday trips with his parents.

Throughout his piano practice lessons Karl could notice small changes in his skills. He played a simple piece slightly better than what he did the previous week. Connections between his skills at a given moment and the moment before or just after were very obvious. If anyone would ask Karl what accounted most for these changes, he would certainly answer and without hesitation that these changes took place because he was 'learning' specific piano pieces. Yet, for the long term, Karl noticed more significant changes. He learnt to play much more complex pieces of music than the ones he could perform years ago. Karl's musical talent became more and more attractive over the long term, in other words his talent now is far more refined than when he was a beginner piano learner.

If someone asks Karl about these long term changes, he would have found it more difficult to answer that question than if he is asked about those short-term changes. He might have answered that he had been getting better at piano. If he is asked the same question now, however, he would say that his music skills had developed, and that their development took a long a time to be reached, and that the changes were not only the result of practice, but from becoming more broadly skilled about music as a whole.

Thus, when we talk about development, we usually refer to those personal changes that take place along the long term and that have different sources and consequences. It is equivalent to Karl's skills in playing the piano at the age of sixteen compared to those at the age of six, instead of the difference between his music one week and that of the following one. We should note that



there are some human developments that are too broad to develop in a short period of time but take a long time to be shaped fully. For example, reading other people's moods may take a whole life time to be fully developed. Other developments may quickly take place, like a kid's increasing skills to stand right on the saddle of a bicycle. Thus, as far as the change is simple and fast, we tend to refer to it by 'learning' rather than development. Thus, the difference between the two concepts, i.e. learning and development is a matter of degree. Learning the names of the planet in the solar system, for instance, does not usually require a long time nor great effort on the side of the child. Therefore, in this case it is more reasonable to think of learning rather than of development (Salkind, 2004).

3.3 Emergence of the Discipline

Child development came into interplay as a formal field of inquiry at the end of the 19th century, and the beginning of the 20th century. Universities at different parts of the USA and Europe started establishing child development Departments and scientific Journals devoted to the study of child development were launched. Alfred Binet (1857/1911), the French psychologist, and his colleagues launched the first systematic test of children's intelligence and were the first to come out with studied results about children's differences.

The American researchers G. Stanley Hall (2002) and in another study Arnold Gesell (2021) used surveys to collect data from a number of parents, teachers, and children so as to shed light on certain children's aspects of development from the feeding schedules of babies, and the toilet training of toddlers, to the pre-schoolers' play activities, the social relationships of elementary school learners, and the physical and psychological changes that adolescents experience throughout this critical period.

3.4 Types and Characteristics of Development

Throughout this chapter we are going to consider the different types of development. Among them is physical development which covers the changes of the body and motor skills. Cognitive development which explains how our minds and mental processes evolve through



time. And finally social and moral development where the social growth since infancy until advanced age altogether with the development of moral values within a social context will be dealt with. Yet before tackling each kind of development aside, it is worth mentioning that most scholars in the domain recognise some characteristics of development to be common among children and which are as follow:

- a- Development is orderly, that is to say phases of development come in order .
- b- Development is a long term process which never happens abruptly over night for children.
- c- Development may happen at different rates for individual.
- d- Some changes occur naturally as they are controlled by our human genetic programming system and are named maturation changes. These changes take place over time and are not affected by the environment. This category mainly embodies physical development. Conversely, to this type of development, social and moral development do not take place until the individual gets in touch with his surrounding environment and others such as parents, siblings, and classmates at school.(Aisha Sato, academia.edu)

3.5 Physical Development

The concern in studying the significance physical growth is to see how much it contributes to an individual's personality development from his early age until his maturation. It also has to do with pupils at schools. Children grow at different rates and develop different body shapes, they may be tall; small, fat, slim or in some cases physically impaired. But, in general there some characteristics that they share while growing up. Below is a table that shows boys and girls development from early ages until they mature.

3.5.1 Height and Weight

The table below shows trends of height and weight for well- nourished and healthy children. It tackles averages of different ages from preschool up secondary school. But, it does not display the differences between children at the same age as in some cases some may be taller or smaller than the average height and the same remark is about weight.



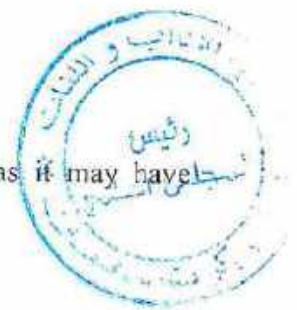
Table 1: Average height and weight of well-nourished children (adopted from Seifert, k and Sutton, R 2009)

Age	Height (cm)	Weight (kg)
2	85	7.0
6	115	20.0
10	135	31.0
14	162	52.0
18	169	60.5

The table above displays the most common heights and weights of children between the ages of 2 and 18, but there are some information that it does not show. Studies have shown that boys and girls in general have the same height and weight during their childhood, but show differences at the beginning of adolescence or more precisely while puberty signs began to show up (10-14), where the average girl is taller, but not that heavier, than the average boy. The period that follows that ,the average boy becomes both heavier and taller than the average girl, in spite of the fact that there are always exceptions (Malina, et al., 2004 cited in Seifert, k and Sutton, R 2009).

The second fact that the table above does not mention is that while children grow up, individual differences in weight may be more noticed than those in height. Around the age of 18, it is noticed that heavy teenagers weigh approximately twice the lighter ones. It is at this age that height and weight can be sensitive to teenagers.

A teenager with a well-developed body may find it easier to get along with other teenagers ad may feel accepted in his surrounding and thus develops a kind of self-confidence and a positive self-concept. However, the teenager with weak small weak body usually develops a feeling of unwanted individual within a group of learners. Thus, parents



and teachers alike should be aware of this physical development trend as it may have dramatic consequences on the teenagers' behaviour and learning too.

3.5.2 Puberty and its impact on Learning

The key word when it comes to puberty is change. Your body is changing, your feelings are changing and your relationships with those around you are changing. You are growing up and becoming an adult. This change from being a child to becoming an adult is called *puberty*.

Puberty is a change in the body that is common among all humans throughout the world. It embodies changes during adolescence that fosters sexual maturity. Not only that, but it also involves changes in internal organs such as growth of breasts in females and the penis in males, along with an increase in height and weight.

Dr. Valérie M. Schwitzgebel from the Paediatric Division in Geneva Hug Children Hospital defines puberty as 'the stage of physical maturation in which an individual becomes physiologically capable of sexual reproduction.'

Indeed as explained by McClintock & Herdt (1996), by the age of 10 or 11 children usually experience a kind of sexual attraction towards the other gender and this attraction, according to Rosenbaum (2006), intensifies when children are at high school. This according to many studies might affect children's social life both in and outside school. Thus, parents and teachers should be aware of these changes that the child is enduring so as understand his behaviour and help him/her answer questions that might bother him during this critical period. Teachers should also be flexible towards the behaviour of children in class at his age, and should be very attentive not frustrate the learner by inadequate observations that might make him be a joke among his classmates.

3.5.3 Motor Skills Development

One the most complex fields of study in human beings is the one related to child development, because it combines biological aspects with a multitude of environmental



factors. The on-going development of motor skills in children lead to a growing independence and the capacity to adapt with the physical and social environment. (Formiga, C, 2015)

The most rapid physical changes in a child's life take place during the first five years. At this period of life, children develop noticeable physical, motor and sensory capabilities that foster exploration and discovery of the environment.

3.5.3.1 Gross Motor Skills Development

Fundamental movement skills are the basis upon which advanced movements are founded (Clark & Metcalfe, 2002). Mastering the fundamental movement skills during childhood boosts the confidence and fosters kids participation in physical activities and consequently fosters a balanced life style at advanced ages (Bakhtiar, 2014). Fundamental movement skills involve loco motor skills such as running and jumping

Table 2: Main motor skills and their development at different stages. (The information above is retrieved from the Florida Early Learning and Developmental Standards).

Age	Motor skills
Birth- 8 months	Gross motor development focuses on arm, body and leg movements. Tone, strength and coordination improve progressively from head to toe. While the sequence of development is predictable, there is variation in each young infant's timetable
8 - 18 MONTHS	Older infants climb and reach for objects beyond their reach. They are preoccupied with controlling their movements and finding new ways to move around in their environments
18 - 24 MONTHS	As young children become more mobile, they continue developing their independence through coordinated, purposeful movement. They often use large muscles to explore their environments. Young toddlers show fearless determination and energy in order to



	accomplish a task
2 - 3 YEARS (24 - 36 months)	Two-year-olds continue developing their independence through purposeful, coordinated activities. Movement now comes with a goal in mind and it tends to be practiced over and over again until mastered
3 - 4 YEARS (36 - 48 months)	Three-year-olds continue improving balance and control, as well as coordination. They are able to combine muscle movements to complete more complex gross motor tasks. Developing coordination requires opportunities and practice to challenge these skills.
4 YEARS - KINDERGARTEN (48 months - Kindergarten)	Four-year-olds are gaining increasing control over their gross motor skills and coordinated movements. As they practice, they become more confident in their abilities.

As one can notice in the table above, children's main motor skills are generally well developed while they reach kindergarten, but are not yet definitely well-coordinated.

At the age of five years, children can generally walk in a normal way. For some children at this age, running is not yet well tuned and would rather look like a hurried walk, but they will perfect it within a year or two. The same thing would be noticed with body movement such as jumping, throwing, and catching objects such as balls. Practically, most kids can perform these body movements, though not perfectly, but they generally better their skills during the elementary years (Payne & Isaacs, 2017).

In spite of the fact that physical skills are not the main concern of school teachers, they are usually of a great importance to kids themselves. Whatever their grade is, pupils who do not control their body movement well are aware of that fact and this might negatively affect their respect in the eyes of their class mates. This may affect their self-esteem in the



long term and may consequently have a bad effect on their learning achievements. (Petlichkoff,1996).

3.5.3.2 Fine Motor Skills

Fine motor skills are the ability to make movements using the small muscles in our hands and wrists. We rely on these skills to do key tasks in school, at work, and in everyday life.

Here is a table that summarises the main fine motor skills that children are supposed to refine through time.

Table 3: Fine Motor skills: A Checklist adopted from Payne (2017).

Age	Skill
0-6 months	<ul style="list-style-type: none"> - Demonstrating a reflexive grasp when objects are placed in hand. - Reaching for and grasping objects. - Mastering controlled reach (6 months). - Holding objects in the palm of 2 hands (by 3 months) or palm of one hand (by 5 months). - Recovering an object dropped within their visual field, by feel, or hear it within reaching range.
6-12 months	<ul style="list-style-type: none"> - Reaching and grasping to put objects in mouth. - Demonstrating controlled release of objects. - Picking up small objects with thumb and one finger. - Transferring objects from one hand to the other. -Pointing with the index finger.
1-2 years	<ul style="list-style-type: none"> - Building a tower of three small blocks. - Putting rings on a stick. - Turning pages of a book (two or three at a time). - Painting using whole arm movements to make strokes. - Eating independently (minimal assistance). -Signing to communicate wants and needs. -Bringing a spoon to mouth. -Holding and drinking from cup independently. -Picking up small objects with thumb and one finger.
2-3 years	<ul style="list-style-type: none"> -Building a tower of 3-5 small blocks.



	<ul style="list-style-type: none"> -Copying a simple sequence of coloured blocks in a tower. -Turning single pages in a book. -Holding a crayon with thumb and fingers. -Using one hand consistently for most activities. -Imitating circular, vertical and horizontal strokes. -Eating without assistance. -Picking up small objects with thumb and one finger. -Completing insert puzzles.
3-4 years	<ul style="list-style-type: none"> -Building a tower of approximately nine small blocks. -Copying block designs of up to 6 blocks. -Tracing on thick lines. -Using one hand consistently for most activities. -Copying a circle or imitating a cross. -Holding a pencil with thumb and fingers on opposite sides of the pencil. -Using the non-dominant hand to assist and stabilise object. -Cutting roughly around pictures. -Completing 4-6 pc interlocking puzzles. -Co-ordinating hands to brush teeth or hair. -Dressing independently including large buttons, socks and shoes (excluding shoelaces, small buttons and initiating zip on a jacket).
4-5 years	<ul style="list-style-type: none"> -Cutting along a line continuously. -Coordinating hands to brush teeth or hair. -Copying 9 block models. -Copying a circle, cross and a square. -Holding the pencil with a tripod grasp (3pt grasp). -Colouring inside the lines. -Colouring an entire picture. -Writing their name. -Copying letters and numbers 1-5. -Using a preferred hand for most activities. -Dressing and undressing independently (excluding shoe laces).
5-6 years	<ul style="list-style-type: none"> -Cutting out simple shapes. -Coordinating hands to brush teeth or hair. -Writing numbers 1-10 independently. -Self generating letters independently.

	<ul style="list-style-type: none"> -Copying a triangle. -Holding a pencil with a 3 fingered grasp and generating movement from fingers (not wrist). -Cut and paste projects. -Drawing basic pictures.
6-7 years	<ul style="list-style-type: none"> -Forming letters and numbers correctly. -Dressing and toileting independently. -Cutting neatly around shapes. -Pencil control. -Endurance for writing tasks. -Drawing detailed pictures with recognisable objects.
7-8 years	<ul style="list-style-type: none"> -Writing neatly. -Maintain legibility of handwriting for entirety of a story.



Fine motor skills are skills which involve the implication of small muscles that children usually use to manipulate objects using their hands and fingers. The development of these skills will enable the child to perform very important tasks such as writing, eating and drawing. The Exposure of the child to a variety of toys, materials and even foods, usually help in the development of such skills.

The development of such motor skills is so important in the life of a child because, because they will help him grow stronger. Thus, parents, caregivers, preschool teachers can help little children to develop these skills by encouraging them to perform or take part in different games as well as using different types of items. Below are some home activities, as proposed by the occupational therapist Patty Bunce, that parents can use with their children to help them develop their fine motor skills:

- **Tummy Time**

Your baby needs time to push up, shift from side to side and eventually swipe at objects in front of him/her, both on his/her tummy and when on /his her back.

- **Finger Feeding**

Let your little one finger feed as much as possible. Picking up food with her fingers will help her develop a pincer grasp (thumb and first finger together), which is a necessary precursor to holding a crayon.

- **Play with Small Items**

Toddlers should be encouraged to stack blocks, string beads, use one piece puzzles and play with pop beads. Children should not be left alone when playing with beads as they may be a choking hazard.

- **Play with Play Dough**

One of the very best ways to build hand strength is to play with play dough, play foam or a similar non-toxic and malleable substance. Think resistance!

- **Finger Painting**

Be sure to encourage finger painting, either with paint, pudding or shaving cream.

- **Puzzles**

Simple puzzles can help children learn about manipulating objects through turning, placing and flipping pieces.

- **Two-Handed Tasks**

Any activity that encourages your child to coordinate both hands together is a great tool for development. An example is rolling a ball of play dough into a long “snake” and then cutting it with a plastic knife.

- **Buttoning and Tying**

Practice buttoning and unbuttoning, zippering, hooking fasteners or tying helps to build strength and dexterity. Large child-appropriate practice boards that help facilitate these activities are available in most toy stores.

- **Practice with Clothes Pins**

Have your child hang pictures, colouring pages or clothes on a clothesline with spring loaded clothes pins. This activity builds pincer strength.





- **Colouring**

Parents should be careful about the time when their child shows interest in colouring, and that usually happens by the age of 2 or 3. When this interest to painting is manifested, parents should provide small crayons that fit his/her tiny fingers.

Look for opportunities throughout the day for your child to manipulate small items, push and pull with her hands and fingers and practice small movements. Being aware of these opportunities is the first step in helping your child develop fine motor skills. Be sure to ask your child's teacher if there are any areas of concern with your child's fine motor development and ask for suggestions if there are concerns. When delays are significant or impeding your child's ability to perform age appropriate tasks, an assessment by a pediatric occupational therapist may be necessary.

3.6 Cognitive Development

Jean Piaget, a Swiss psychologist, developed one of the most widely known theories which gave insights about cognitive development which he called the cognitive stage theory. He observed children and created an account of how they gradually could think logically. Since his theory is very famous among all the other ones who have studied cognitive development, it is considered enough to focus on him rather on others in this part of the chapter.

3.6.1 Piaget's Theory of Cognitive Development

Jean Piaget did a lifelong research on children where he tried to study their cognitive development (1954, 1964, 1969). His longitudinal research consisted in observing individuals from their early childhood until they became adolescents. He observed them in natural situations and asked them specific questions as they were taking cognitive tasks. This enabled him to describe how children's thinking processes developed over time. Here is a sample of a conversation that took place between Piaget and a 9-year-old child.

What is your nationality?—I am Swiss.—

How come?—

Because I live in Switzerland.—

Are you also a Genevan?—

No, that's not possible . . . I'm already Swiss, I can't also be Genevan.

(Piaget, 1965/1995, p. 252 cited in Moreno. R, 2010)

Jean Piaget (1896 – 1980) spent his whole life trying to answer questions about the way human beings acquire knowledge. He assumed that by studying developmental changes in the process of knowing and in the organization of knowledge, he could draw conclusions about his queries.

3.6.1.1 Stages as structures of logic

Piaget's cognitive development theory is explained through a series of stages. During each stage the child's thinking and behaviour while learning through different experiences and situations clarifies a particular kind of mental logical structure, which allows the interaction of the child with his environment. Thus, each stage reflects a different view of the world.

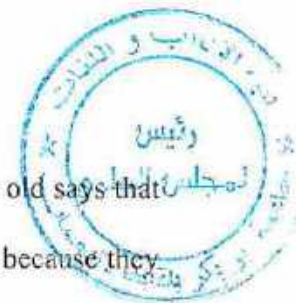
Piaget characterised these stages as being stable for all children and follow the same universal sequence. Each stage is a related and prepares the child to the next one.

Piaget developed his model of infancy mainly through observing babies as they perform their daily tasks of playing and learning about the world. His most remarkable conclusion related to infants' observation was *object permanence* concept. He explained that for children understand that objects exist even when they cannot see, feel, or hear them.

For example, a young infant who sees a toy placed under a blanket so that it is no longer visible acts as though it no longer exists.

Piaget's most famous task was conservation (of number, weight, length, etc.). For example, he showed children two rows of eight objects, one right above the other. After they agreed that they had the same number he spread out one row and then asked whether





they still had the same number. An 8 - year - old says they do, whereas a 4 - year - old says that the longer row has more. According to Piaget, preoperational children fail this task because they lack reversible mental operations, which characterize concrete operations. Finally, formal operational children perform operations on operations, such as generating possible outcomes and evaluating them in light of evidence.

Table 4 : Stages in Piaget’s theory (adopted from Patricia H. Miller, 2011)

Stages in Piaget’s Theory	Characteristics
Sensorimotor period (roughly birth to 2 years)	Infants understand the world in terms of their overt, physical actions on the world. Simple reflexes gradually become more complex, intentional, and organized. Each action – based concept is a pattern of perceptual - motor interactions, for example, “ things you can suck on. ” Piaget refers to a “ logic of action. ”
Preoperational period (roughly 2 – 7 years)	Children use symbols (mental images, words, gestures) to represent objects and events. That is, they reconstruct the Sensorimotor concepts of objects, relations, causality, space, and time in a new medium (mental representation) and a more highly organized structure. Despite the limitations of egocentrism, rigid thought, and limited role - taking and communication abilities, these symbols become increasingly organized and logical, so that children can think about causes.
Concrete operational period (roughly 7 – 11 years)	Logical structures permit children to perform various mental operations, which are internalized actions that can be reversed. Thinking now is more flexible and abstract. Actions are still the main source of knowledge, but the actions now are mental. Logic dominates over perceptions, such that

	children understand that quantities stay the same even though they change their appearance.
Formal operational period (roughly 11 – 15 years)	Mental operations now can be applied not only to concrete objects but also to purely verbal or logical statements, to the possible as well as the real, to the future as well as the present. Children take the results of concrete operations and generate hypotheses (propositions, statements) about their logical relations. Thus, they have operations on operations; thought has become truly logical, abstract, and hypothetical. The essence of formal operational thought is the scientific method. Children formulate a hypothesis and test it. They can imagine all possible outcomes and generate all possible combinations to test.

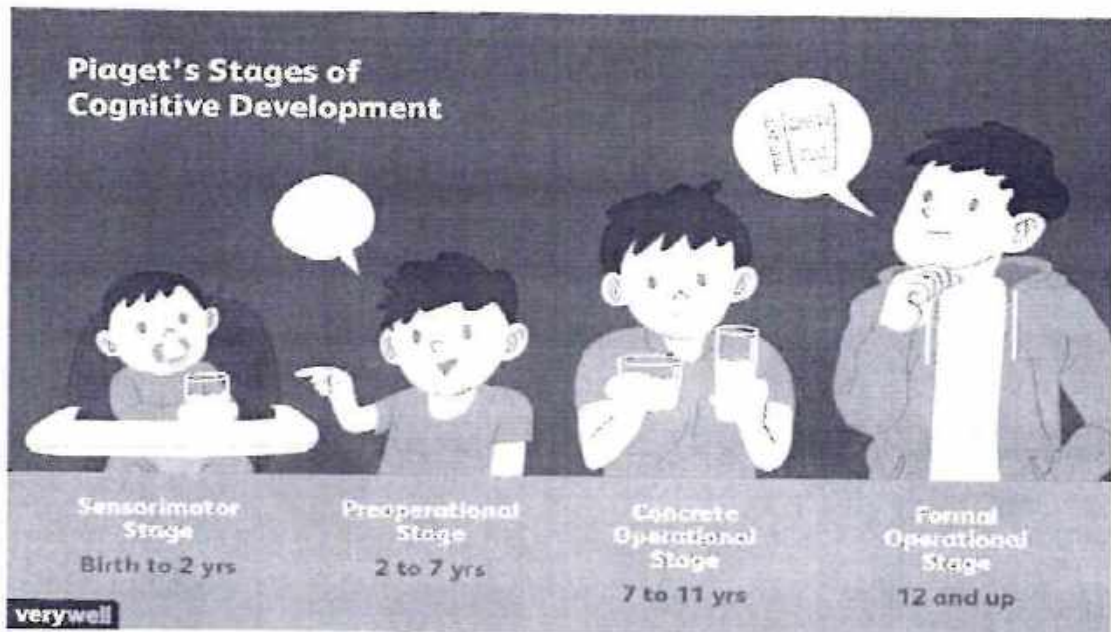
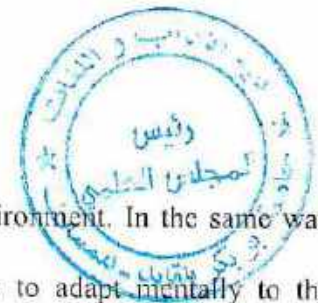


Illustration by Joshua Seong, Very well (retrieved from <https://www.verywellmind.com/piagets-stages-of-cognitive-development-2795457>)



3.6.1.2 Assimilation and Accommodation cycles

Jean Piaget defines intelligence as the adaptation with the environment. In the same way that people adapt physically to the environment, so they do with to adapt mentally to the environment.

He further explained that the adaptation involves two complementary processes: assimilation and accommodation.

Assimilation is the interpretation of new information in terms of pre-existing concepts, information or ideas. A child who already understands the concept of 'bird' might initially identify any flying thing, such as butterflies or mosquitoes, with the term 'bird'. Assimilation is in a way identical to the concept of generalization in operant conditioning. In the theory of Piaget, however, a mental representation for an object or an experience is being transferred rather than just a behaviour (Skinner's "operant" in operant conditioning). Assimilation works in parallel with accommodation, which is the modification of pre-existing concepts in terms of new experiences or new information. The little child who generalizes any flying object to be a bird, will later on revise the concept to consider only some types of flying objects such as swallows or a canaries and not others, like drones or butterflies. Up to Piaget, these two concepts (assimilation and accommodation) work hand in hand to develop the child's thinking and to generate what Piaget named cognitive equilibrium, which is a kind of balance between relying on the prerequisite and openness to the unknown or what Piaget called new information. This ever-growing repertoire of mental representations for objects and experiences is further explained by Piaget and he considers that every mental representation as a schema. He explained that a schema is a mixture of vocabulary, actions, and experience related to the concept. A child's schema for bird, for example, embodies not only the appropriate verbal knowledge (defining the word "bird"), but also the child's experiences with birds, pictures of birds, and conversations about birds. As assimilation and accommodation about birds and other flying objects operate together over time, the child adds and remembers relevant new experiences and actions. From these collective revisions and additions the child gradually constructs general new

schemata about birds, butterflies, and other flying objects. In general terms, Piaget might then consider that “the child has learned more about birds”.

Piaget assumes that the two processes, assimilation and accommodation, are motivated by the requirement to establish equilibrium, the natural tendency to find rationalism in one’s thinking. Disequilibrium, however, is the state of cognitive conflict that shows up when one’s thinking is not constant or when our present schemas are not validated by our experiences the world. Piaget explained that disequilibrium is the reason behind cognitive growth. For this reason, teachers are invited to find classroom situations where cognitive conflict is sustained to foster meaningful learning among their pupils. For instance, in the case of a child who uses a dog schema for understanding what a cat is, a teacher can help the child focus on defining characteristics of dogs that are absent in cats (e.g., barking) to promote cognitive conflict, accommodation, and equilibrium. Limón (2001) identified the following steps to produce students’ cognitive conflict:

1. Assess students’ current state of knowledge or beliefs.
2. Confront students with contradictory information.
3. Evaluate the degree of change from students’ prior knowledge or beliefs.



Table 5: Cognitive Conflict Examples for three Grade Levels (adopted from Moreno 2010)

Grade Level	Classroom Examples
Elementary school	Ms. Allen’s first-grade art class is studying colours. She puts dabs of yellow, red, and blue tempera in front of her students and asks them how many colours they will be able to use in their paintings. Most students hold up three fingers. She asks if there is any way to paint green grass. Alex answers, “Only if you get green tempera.” Ms. Allen then asks the students to start mixing their paint to see if they can make green from the three colours on the table.
Elementary school	Ms. Perez asks her science class what makes plants grow strong and healthy. Tommy responds, “I know! Just like us, plants get stronger and healthy when they have good food. My mom always puts in plant food when she waters the plants.” To help Tommy understand the importance of light, Ms. Perez decides to have her students do an experiment where two plants are given the same amount of nutrients during a month yet one plant is left in the shade. She then engages the class in a discussion by revisiting her initial question.
Middle school	Mr. Jenson asks his social studies class if Christopher Columbus should be considered an American hero. Jenny is quick to respond, “Sure! He was the guy who discovered America!” Most of the class agrees with her. Mr. Jenson then asks his class to read two articles about Columbus, one



	describing the implications of the discovery for Western society and another piece describing the effects on Native American societies. He then revisits his initial question.
Middle school	Ms. Dustin is starting her unit on dividing fractions. After reviewing adding and subtracting fractions, she asks the students what they think will happen when you divide two fractions. Karen answers, "When you divide numbers together you get a smaller number, so you should get a smaller fraction." Most of the class agrees. Ms. Dustin then divides the groups into pairs and gives them paper pizzas to divide into pieces to show that fractions increase with division
High school	After studying data on global temperature and atmospheric changes, Mr. Olsen asks his environmental science class what the social and political implications of the data are. Many students say that there should be stricter laws on pollution, cars should be made more fuel-efficient, and people should drive less. So his students can gain greater perspective of this issue, he assigns each student a country to research and represent in a mock United Nations meeting. Most students are asked to represent developing or third world countries.
High school	Mr. Jenkins asks his literature class what role a government should play in people's lives. Jackson answers, "Man, all the government does is keep you down. It's just a bunch of people telling you what you can and can't do. We need to lose it." Mary Lou responds, "Yeah, it doesn't do nothing to help me but take money." He then has the class read George Orwell's Animal Farm and then revisits his original question.

3.7 Social Development

What are the constituents that participate in the development of a person? For moral philosophers 'personhood' is not an automatic characteristic in human existence but is rather dependent on the realisation of self-awareness, moral autonomy, and a multitude of other constituents of distinctly human ability. Yet, while studying the development of personhood, developmental scientists stress the continuous relational context in which babies and little children develop their earliest understandings of who they are, who others are, and how to weave relationships with children. (Thompson, 2006)

The aim in this introduction to child' social development is not to describe how the early personality of a child emerges or identify individual characteristics that will give us insights about adult personality traits. Instead, through this chapter, we just want to highlight the different stages that shape the social development of a normal human being and that can be summarised in terms of Erikson (1980).

Erik Erikson, a German American Psychoanalyst, developed the theory of social development in stages just in the way Jean Piaget did with his cognitive development theory.

The only difference is that Erikson regarded those stages as a series of psychological or social crises which have a very crucial role in the life of a person in terms of relationships and feelings towards himself and towards the others (Erikson, 1980). It is to be raised that each of Erikson's stages consists of a kind of dilemma which hold either advantages or disadvantages to the individual person at different ages. Surmounting one stage crises will have effects on the upcoming crises related to each respective stage. Erikson came up with eight crises that extend throughout a person's life span. They are summarised in the table below.

Table 6: Eight psychosocial crises according to Erikson (adopted from Seifert)

Psychosocial crisis	Approximate age	Description
Trust and Mistrust	Birth to one year	Development of trust between caregiver and child
Autonomy and shame	Age 1-3	Development of control over bodily functions and activities
Initiative and guilt	Age 3-6	Testing limits of self-assertion and purposefulness
Industry and inferiority	Age 6-12	Development of sense of mastery and competence
Identity and role confusion	Age 12-19	Development of identity and acknowledge of identity by others
Intimacy and isolation	Age 19-25+	Formation of intimate relationships and commitments
Generativity and stagnation	Age 25-50+	Development of creative or productive activities that contribute to future generations
Integrity and despair	Age 50+	Acceptance of personal life history and forgiveness of self and others



3.7.1 Preschool Crises

a- **Trust versus Mistrust:** The first stage in Erikson's social personal development theory starts from birth to the age of 1 year. Up to Erikson, the babies who go through this age successfully are those who gain confidence from their caregivers while they satisfy their basic needs. This takes place as a result of care givers being responsive to their infant's needs for food and care, which will end up in the feeling that they can rely of the world around them (Thompson, 1998). Meanwhile, infants who do not resolve the trust crisis will end up by a feeling of mistrust towards others and view the world around them as hostile and not supportive.

b- **Autonomy versus Shame**

The stage that follows the trust mistrust one, is characterised by a period where children start to learn to become self-sufficient. For instance, between the age of 1 and 3, babies start to talk, walk, eat and use the toilet. This stage usually fosters a sense of children's autonomy, independence, and mastery of thought, emotion and behaviours control.

According to Erikson, babies who fail to resolve the autonomy crisis will end up in doubting in themselves and develop a sense of shame as result of their beliefs that they are unable to control their environment. This trust phase while resolved successfully by children, will have positive results in school where they will show high confidence while doing their academic tasks as well as coping with their classmates and making relationships. This sense of confidence may generate success (Eccles, Wigfield, & Schiefele, 1998).Erikson advises caregivers to encourage such autonomous behaviour by allowing children to make their own choices, to eat and dress alone, and to do their toilet by themselves.

c- **Initiative versus Guilt.**

At approximately the age between 3 and 6 appears the next stage which coincides with the first experiences of children at school. During this period, children affirm themselves in ways considered to be socially acceptable and start to learn to take initiative in their relationship with their school mates and tasks given by their teachers. For example, the child at a day care center



may now undertake, for example, to build the “biggest city in the world” out of all available unit blocks—even if other children want some of the blocks for themselves. The child’s projects and desires create a new crisis of initiative and guilt, because the child soon realizes that acting on impulses or desires can sometimes have negative effects on others—more blocks for the child may mean fewer for someone else. According to Erikson, kids who cope well with this stage are the ones who have insights about the purpose in life. Children who fail to resolve the initiative crisis successfully will have difficulties to take initiatives later on in their lives. At school, successful children will demonstrate well refined self-regulation skills and an ability to set learning objectives. The role of caregivers and at home and teachers at school is to provide opportunities for children to work on new things and scaffold children when they try to do activities on their own.

3.7.2 Elementary and Middle School Crisis: Industry versus Inferiority

The fourth stage occurs between the age of 6 and 12 when children are at primary or middle school years. At this stage the child needs to face new challenges and learns new skills. Unfortunately, when these learning needs are not fulfilled, children will likely develop a feeling of inferiority.

To pass this stage successfully, children need to develop a sense of competence and industriousness in any work they tackle. Of course, in school this industriousness competence should have to do with school work such as homework and projects. To promote industry, caregivers and teachers at schools should set children to work on activities that are within their zone of proximal development, that is to say, reasonably challenging to their actual cognitive development in order to promote a sense of attainment of success (Dweck, 2008).

While the child successfully fulfils and masters an activity, he might be given another one which is a bit higher and more demanding and challenging than the previous one.

For example, Belcher & Hatley (1994) setting learners to work on challenging and supportive middle school experience is a crucial factor in their preparation towards a successful shift into

secondary school education . In a research undertaken by Mizelle (1995), it was asserted that learners declared that if their middle school teachers had encouraged them towards taking in charge their own learning and presented to them a more challenging curriculum, their upgrading to secondary school would have been much more easier . These findings are congruent with those of Oates and her team of researchers (1998), who came out with the conclusion that students who took part in a community learning project ,meant to help middle school pupils develop a sense of responsibility for their own learning and behaviour ,had an easier and successful move into high school than pupils who had not taken part in the community project.

3.7.3 High School Crisis: Identity versus Role Confusion

The fifth stage of Erikson's psychological development theory coincides with adolescence which is a very critical period in the life of a person, when teenagers seek to find their identity in occupation, politics, and religion. It is at this age that teenagers start to question themselves who they are, what they will do with their lives,

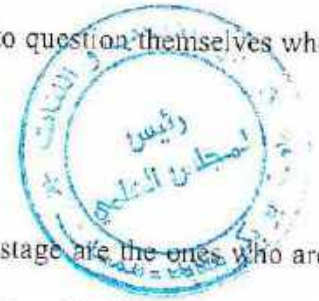
(Kroger, 2005; Pals, 2006).

Teenagers who manage to successfully go through this stage are the ones who are self-confident about themselves. However, those who struggle to resolve this identity crisis will generally remain confused about who they are, how their future as human beings inside their community will be, and what they should do with their lives.

Some key solution to help adolescents go through this period safely, is at the hands of adults who should show more appreciation of as many careers, life styles, and ideologies as possible. At school, teachers should create environments that enables the learners with chances to explore and expand their views of the occupations they might do after school. For example, encouraging them to take on roles as doctors, authors, noble prizes holder

(Hamman & Hendricks, 2005).

Besides, teachers are required to demonstrate and show some kind of tolerance vis-à-vis their students' behaviour still in search of their identity. Erikson suggests that adults should be



more tolerant towards adolescents' public displays, unsteadiness, and experimentation since it is via these activities that they have an idea about their future adult roles. When adolescents' identity choices lead to rejection, tension, and violent behaviour from peer mates, then it is of utmost importance to provide and support them within a safe environment so that they are protected. (Koppelman & Goodhart,2005).

3.7.4 Erikson's Adulthood Crises

The last stages of Erikson's personal development theory take place at advanced ages and begin after the adolescence period approximately around the age of 19.

a- Intimacy versus Isolation.

This stage is characterised by young adults seeking intimate relationships with others. Success at this stage will usually generate the young person's ability to feel non-selfish admiration, and to develop a strong, affectionate relationship that usually is bilateral in giving and taking.

The non-success at this stage will generally result in a feeling of isolation and a feeling that one is unable to tie intimate relations with others (Berscheid & Reis, 1998).

b- Generativity versus Stagnation.

The seventh psychological stage occurs during mid-adulthood, at a time when individuals have established a family and look for the adequate ways to sustain themselves and others. Adults who successfully manage to get through this crisis, usually feel a need to nurture their family, share what they have realised with younger adults, and engage in child education or mentorship (Smetana, 1997). In case the crisis is not resolved, adult individuals might develop a sense of stagnation in their lives and would have a negative feeling towards their contribution in the world. Like teachers, adults who manage to go through this stage successfully are likely to be proud enough about their realisation and would like to help their students achieve their own objectives.



c- Integrity versus Despair.

The last psychosocial stage occurs by the age of 50 and onward, as people attempt to make sense of the lives they have led so far. According to Erikson, the people who are happy with the choices and the decisions they had taken during their lives, do generally gain a kind of wisdom that will accompany them throughout the rest of their lives. However, if the crisis at this stage is not resolved, this may result in a development of a feeling of despair over their lives and the opportunities they could not profit from.

3.8 Maslow's Hierarchy of Needs

The theory of personal needs developed by Maslow is framed in a form of a pyramid where the basic or "lower level" needs have to be satisfied before the higher level needs start to develop as shown in the figure below:



Figure 3: Maslow's Hierarchy of Needs (retrieved from Education in Education Library)

In his theory Maslow distinguishes two kinds of needs: deficit needs and being needs.

The table below summarizes the two levels and their sublevels.

Table 7: Maslow's sublevels of Needs

Deficit needs	-Physiological needs -Safety and security needs -Love and belonging needs
Being needs	-Aesthetic needs -Self-actualization needs

Deficit needs precede the being needs, not in a way that they happen earlier in a person's life, but in that deficit needs have to be satisfied before being needs can be tackled. As explained by Erikson, deficit needs might reappear at any time in a person's life, depending on circumstances that shape his life. If that happens, the deficit needs must be realized before an individual's attention might move again to 'higher' needs. While we consider students' cases that might be addressed when a student is issued from a family with economic problems, or with the stress related to poverty (Payne, 2005).

3.8.1 Deficit needs vs. growth needs

The five stage model put forward by Maslow can be divided into two categories: deficiency and growth needs. The first four stages are usually referred to as deficiency needs, and the upper need is labelled by growth or being needs. Deficiency needs are the result of deprivation and are the supposed to be the reason behind the motivation of people mainly when they are not realised. It also assumed that the longer those needs are denied, the stronger the motivation to fulfil them will be. For instance, the longer an human being stays without eating, the sharper his hunger will be. Maslow (1943) primarily explained that individuals have to first satisfy lower level deficit needs before moving on to satisfy higher level growth needs. However, he later made it clear that meeting the needs is not "all-or-none" phenomenon, which means that the need should not be realized 100% before the following need occurs (1987, p.69).

Deficit needs, as explains Seifert (2009), are the fundamental daily necessities of physical and emotional well-being. The primordial needs are the physiological ones- food, sleep, clothing, and the like. If these requirement are unmet, nothing else matters for an individual, mainly higher needs such as self-fulfilment. A school learner who is not having the appropriate amount of food to eat, is not going to show much interest in learning. Yet, while physiological needs are satisfied, safety and security needs become of utmost importance. One of the most basic requirements for any human being is stability and protection. A child growing in an abusive family might get enough food to eat but may have a feeling of constant insecurity and a lack of safety. In school, the learner is more likely to get along with a well-organised classroom with regulations that guarantee his personal safety, regardless of whether or not the quality of learning is satisfactory in his eyes.

While the physiological and safety needs are satisfied, love and belonging needs show up. Individual persons try to develop relationships with friends, as these personal relationships have an impact on their personality within their community. In schools, a student may consider friends' and teachers approval as one of his top priorities. If such a student manages to integrate a group, then his motivation will shift to esteem needs. Now the concern is to gain recognition and respect which will help him/her achieve learning goals to earn public recognition.

3.8.2 Being needs

These needs characterised by the will to of a person to become the best of what he can possibly become. They embody cognitive needs (a desire for knowledge and understanding), aesthetic needs (this has to do with beauty and order), and above all self- actualisation needs which has to do with reaching the utmost level of one's potential. Being needs appear when all the deficit needs have been fully realised. Yet, unlike the deficit needs, the being needs do not disappear when they are fulfilled, but tend to generate a will for more realisations of the same kind. A wish to know more is an ever ending process which motivates the person to know more and more during his life span.



Maslow explains that self-actualizing individuals have some kind of characteristics which specify them. They have deep relationships with others, but tend to value solitude too. They have sense of humour, but know when to use it and never use it against others. They accept themselves as well as others and are spontaneous, creative, and ethical.

3.9 Moral Development

Students always ask themselves questions about the right and the wrong things to do while learning in class. They may wonder whether they should cheat or not during a test or if they should say or not when a peer has broken the school rules. Students' moral way of thinking often impacts the way they behave in class, such as how they should address their teachers and peers in school, and how they respect the school regulations. Therefore, teachers and would-be teachers should have a clear understanding of the theory of moral development as this knowledge will help one to make the right decisions in classrooms.

3.9.1 Kohlberg's Theory of Moral Development

Like Jean Piaget, Lawrence Kohlberg's theory of moral development occurs in stages. Kohlberg's moral development theory was based on interviewing adolescents and adults. His method consisted of presenting a set of moral dilemmas to individuals and questioning them about the problem. A model of dilemma and related questions that he asked to individuals are shown in below:

The classic moral dilemma and questions used in Kohlberg's research. (cited in Moreno2010)

MORAL DILEMMA

A woman is near death and is suffering from a special kind of cancer. There is only one drug that doctors think might save her. It was recently discovered by a druggist living in the same town as the woman. The drug was expensive to make and the druggist is charging 10 times what the drug cost him to make. The sick woman's husband, Heinz, tries to borrow the money to buy the drug from every place he can think of but he can't raise enough money. He

tells the druggist that his wife is dying and asks him to sell it to him cheaper or let him pay later. But the druggist says, "No, I discovered it and I deserve to make money from it." Later, Heinz gets desperate, breaks into the druggist's store, and steals the drug for his wife.

QUESTIONS

- Was Heinz right to steal the drug?
- Is it the husband's duty to steal the drug for his wife?
- Did the druggist have the right to charge as much for the drug?

Why or why not?

This dilemma can be presented to students in class where the teacher asks them to answer the questions that Kohlberg asked his interviewees. Then later on after studying the moral development of Maslow, the teacher might ask his student to reflect on their answers and assess their own moral development according to Kohlberg's theory.

After that Kohlberg collected and analysed the data from his informants, he concluded that moral development has three main levels: pre-conventional reasoning, conventional reasoning, and post conventional reasoning. He even described the process further by dividing the three levels into two sub-levels for each, which gave six levels for all (see table below). Up to Kohlberg, the force that shapes moral development is moral internalisation, the process of gradually incorporating external moral codes as our internal moral codes (Kohlberg, cited in Moreno 2010).





Table 8: Moral stages according to Kohlberg (adopted from Moreno 2010)

Moral stage	Definition of what is "good"
Pre-conventional Level:	
Stage 1: Obedience and punishment	Action that is rewarded and not punished
Stage 2: Market exchange	Action that is agreeable to the child and child's partner
Conventional Level:	
Stage 3: Peer opinion	Action that wins approval from friends or peers
Stage 4: Law and order	Action that conforms to community customs or laws
Post conventional Level:	
Stage 5: Social contract	Action that follows social accepted ways of making decisions
Stage 6: Universal principles	Action that is consistent with self-chosen, general principles

3.9.1.1 Kohlberg's morality of justice

As explained above Kohlberg developed a six stage theory of Moral development that governs the assumption of individuals to justice. These are going to be specified in what comes below.

3.9.1.1.1 Pre-conventional justice: obedience and mutual advantage

People who think and take decisions in terms of pre-conventional morality usually give no consideration to the internalisation of moral values. Morality in Kohlberg's first level is shaped by the results of an action rather than by the inherent goodness or badness of the action. This kind of moral reasoning usually concerns children between the age of 7 and 10.

This first stage is characterised by the concern of the individuals with *obedience and punishment*, while the second is characterised by *individualism and exchange*.

This level of moral development comes at an age when little children first go to school. At this age the child is still centred on himself and careless about the world around him and also unaware about the effects of his actions on others. The rightness or the wrongness of actions at this stage, according to Kohlberg, is determined by *reward or punishment* from the side of the authorities who might be parents at home or teachers at school. If a child takes a candy and his



caregiver gives him an affectionate smile, then this behaviour considered as morally 'good'. If the caregiver blames the child, then the behaviour is considered to be morally 'bad'.

At this level the child not only learns how to react to positive consequences, but also how to provide them by exchanging services with others. This new kind of behaviour, according to Kohlberg, generates stage 2, which he labelled the *ethics of market exchange*.

At this stage of moral development, the rightness or wrongness of behaviour is determined by the consequences it brings on him and on the other. If exchanging the kind of candy the child has with another kind of candy another child owns is agreeable, then the exchange is morally good; otherwise it is not. At this stage of moral development children in school would also see it 'good' to receive money from a classmate to do a homework for them provided that both parties consider the agreement as being fair.

3.9.1.1.2 Conventional justice: conformity to peers and society

The second level of moral development is characterised by people thinking in terms of conventional morality. This, according to Kohlberg, initially occurs at the age between 10 and 16 years of age. At this stage individuals seem to act in accordance to the rules that are believed to be internal, but in reality they are the rules set by the standards of others. Consequently, this stage is shaped by obeying the rules and conventions of society.

Thus, at this level of moral development, people value the relationships they hold with others as they consider their expectations of those who are important in their lives. At this level children start to value what is good for a group over what is good the individual. A child who avoids cheating so as not to upset his/her parents is reasoning at conventional stage.

Law and order is the name given by Kohlberg to the second stage in the conventional morality level. At this level individuals still value others, but tend more to follow laws and regulations for their own interest.

In the example cited above about the school learner who avoids cheating to gain his care givers' consideration, avoids it now because the school regulations forbid it. Thus, his reasoning

now goes under this stage of moral development. An additional characteristic of this stage is the value of order. Individuals are convinced that order has to be there to orient behaviour and regulations guide order and uniformity.

3.9.1.1.3 Post-conventional justice: *social contract and universal principles*

The third level of moral development is characterised by a kind of detachment from the individual and social levels and transcends to moral principles. People reasoning at this stage do care about rules but have a strong belief that rules very often need to be improved or even ignored so that to generate a fair outcome. At this highest stage, moral development is internalised in a way that an individual's internal moral principles outweighs the regulations of the society. For instance, if someone were in Heinz's situation, he may consider stealing the drug as a way to save the life of the lady, because a person's life is priceless and outweighs the society's rule that stealing from others is wrong. Up to Kohlberg, a small number of people above the age of 20 would reach this level. Thus, the first stage in this level is named *social contract*, because moral reasoning at stage relies on principles that are shared by the whole society.

The last stage in Kohlberg moral development theory is called *universal principles* stage. This may include concepts such as the rights of life, freedom, fairness and justice. Yet, as many people doubt about the existence of universal principles, this stage may be seen as an ideal stage of moral development than an actual stage. Now an action, belief, or practice is morally good if it has been elaborated through fair, democratic processes that respect the rights of the people affected. At Stage 6, the universal principles will guide a person's beliefs even if the principles mean disagreeing occasionally with what is customary (Stage 4) or even with what is legal (Stage 5).

Now that you have studied the different stages of moral development and its different alternatives and how these are congruent with Kohlberg's model, try to have a look at the table below and see where your reasoning about Heinz's dilemma is positioned among the six stages.



Keep in mind that it is not your answer to the questions asked by Kohlberg that matters, but the type of reasoning which is to be underlined. That is to say a *no* or *yes* answer is less important than the type of rationale undertaken for both options.

Table 9: Characteristics of Kohlberg's stages of moral development and reasoning examples.

(Kohlberg, adopted from Moreno 2010)

LEVEL/STAGE	CHARACTERISTICS	HEINZ DILEMMA REASONING EXAMPLE
Level I/stage 1 Obedience and punishment	Rules are followed because of the threat of punishment.	"Heinz should not steal the drug because he might get caught and thrown in jail."
Level I/stage 2 Individualism and exchange	Rules are followed if they are in the best interest of the individual.	"Heinz should steal the drug because the druggist refused to make a deal that would benefit both parties."
Level II/stage 3 Interpersonal conformity	Rules are followed because individuals try to do what is expected of them.	"Heinz should steal the drug because a good husband needs to take care of his wife."
Level II/stage 4 Law and order	Rules are followed because they are necessary to keep society's order.	"Heinz should not steal the drug because people need to obey laws against theft to keep society in order."
Level III/stage 5 Social contract	Rules are followed because individuals are bound by a social contract.	"Heinz should not steal the drug because people have a social contract against threats to property rights."
Level III/stage 6 Universal principles	Rules are followed when they are consistent with individuals' own ethical principles.	"Heinz should steal the drug because the value of life outweighs the value of any other human right."

3.9.2 Gilligan's Morality of Care

Carol Gilligan, an American psychologist, assumes that to understand the development of moral beliefs we need more than Kohlberg's stages of moral justice. To clarify her claim, Seifert & Sutton (2009) exemplified through a classroom situation where a student asked his teacher for more days to give back his home assignment. Reasoning in Kohlberg morality of justice, would make the teacher wonder if that would be fair granting this student

some extra- days to give back his assignment. Would he have more chances over his classmates to bring a better work because he was granted more time? In addition to these, the teacher would wonder if the student had a tangible reason(disease, family problems. ...etc) to grant him an extra time to hand back his assignment. This last question, according to Gilligan, needs more than morality of Justice considerations, it requires from the teacher to care and be responsible about his student's case. This she called *morality of care*, or a system of beliefs about people's responsibilities, consideration and care for the other people. Gilligan proposed three moral positions of *ethical care*. The table below displays the three moral positions from Gilligan's theory.

Table 10: Positions of moral development according to Gilligan (adopted from Seifert & Sutton,2009)

<i>Moral position</i>	<i>Definition of what is morally good</i>
<i>Position 1: Survival orientation</i>	<i>Action that considers one's personal needs only</i>
<i>Position 2: Conventional care</i>	<i>Action that considers others' needs or preferences, but not one's own</i>
<i>Position 3: Integrated care</i>	<i>Action that attempts to coordinate one's own personal needs with those of others</i>

3.9.2.1 Position 1: caring as survival

In his book, educational psychology, Kelvin Seifert (2009), reports Gilligan's conclusions that survival orientation is the most basic type of caring, within which a person's first concern is his personal welfare. As an example, he states the case of a teenage girl who wonders whether to get an abortion or not (this case is in countries where abortion is permitted). Reasoning in this ethical position, the teenage will only care of the abortion consequences on her. The morally good choice is the one that harms her the least, and responsibilities to others (the baby, the father, her family) have no share in her reasoning.



3.9.2.2 Position 2: conventional caring

Conventional caring is another state of reasoning where the individual is concerned about the welfare and happiness of the people around him/her and taking into consideration their conflicting needs. In considering abortion, the teenage would consider the father's opinion, and the doctor's point of view about keeping or not the baby. Then, the morally good choice is what pleases the others the most. This position is ethically and intellectually more challenging than position 1 as it requires the individual to coordinate the considerations, needs and values of different individuals around her. But it is generally morally insufficient as it neglects one's own needs; the self.

3.9.2.3 Position 3: integrated caring

The integrated caring, according to Gilligan's theory, is when an individual coordinates his own needs with those of other people. AT this position the morally good choice involves everyone in addition to oneself, instead of everyone except oneself. A teenage at position 3, would take into consideration the consequences of abortion on herself and other people such as the father, the unborn child and family members. She would consider the extent to which the child would impact her social situation, professional career and her plans.

3.10 Summary

It is very important for teachers and would-be teachers to have an deep idea about the notion of development in learners, this knowledge will help them take the appropriate decision with their learners at school taking into consideration their physical development from kindergarten to high school.

The cognitive development of children will help think at different levels developing new abilities in relation to their stages of cognitive development. Jean Piaget has clarified in detail that kind of development and how it leads learners construct knowledge.

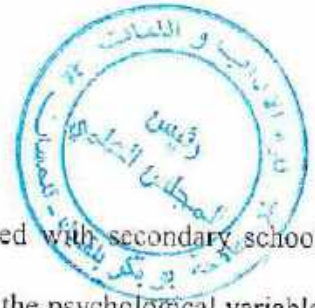


Socially speaking, students face and manage to turn around many social issues from the very first moments of their lives with their care givers until they reach advanced ages after school is over.

Abraham Maslow has described through his theory of hierarchy of needs how the individual upgrades the basic or "lower level" needs to reach higher level needs to reach self-actualisation.

In terms of Moral Development, individuals develop both a sense of justice and of care for other people, and their reasoning in each of these states of the mind undergoes crucial changes as they grow up. Lawrence Kohlberg has explained the shifts that take place in children and youth's beliefs about justice, and Carol Gilligan has tackled the part that shows the changes in their beliefs about care.





4.Intelligence and Education

This part of the hand-out presents that I personally performed with secondary school learners. The aim behind it is to demonstrate the relationship between the psychological variable “Intelligence” and learning English as a foreign language.

Thus, an introduction to the concept all along with different definitions imposed itself before handling the study. A brief historical view to the conception of intelligence and its development from a single static construct up to a multiple intelligences one (theory adopted by an American psychologist and upon which the research was shaped) .Then, a definition to Multiple Intelligences is provided with a clarification of the criteria they must meet to be considered as such. Next, an explanation to the characteristics of these intelligences and their implications for foreign language education will be clarified. After that, the results of the questionnaire completed by first year secondary school English learners will be analysed , and some kinds of activities that favour the eight intelligences and that may be used to teach English in the light of human differences will be proposed .Finally, the chapter will be closed up by a general conclusion.

4.1 Introduction

In the study of educational psychology, no concept is more important than intelligence in trying to react on understanding how children learn as they grow and develop. Its place in the cognitive- intellectual domain is obvious, but it also has a bearing on the physical-motor and social –emotional domains. This is especially true in the adolescence age, when the distinctions among the domains become less sharp.

The study of this concept is complex, and controversial issues have emerged in recent years. The need for teachers, parents and others involved in the education of children to understand its nature is incontestable. So what exactly is intelligence?

There is probably no aspect of contemporary psychology that is more misunderstood by the general public than intelligence. Its notion has a profound effect on one’s social status,



educational opportunities, and career choices. Even though great importance is attached to intelligence, most of us are unable to define what exactly intelligence is.

4.2 Defining Intelligence

Intelligence is defined in Wikipedia as “Individuals differ from one another in their ability to understand complex ideas, to adapt effectively to environment, to learn from experience, to engage in various forms of reasoning, to overcome obstacles by taking thoughts. Although these individual differences can be substantial, they are never entirely consistent: a given person’s intellectual performance will vary on different occasions, in different domains, as judged by different criteria .Concepts of “intelligence” are attempts to clarify and organize this complex set of phenomena.”(Wikipedia, the free Encyclopedia).

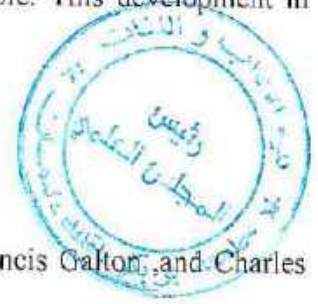
“A very general mental capability that, among other things, involves the ability to reason, plan, solve problems, think abstractly, comprehend complex ideas, learn quickly and learn from experience. It is not merely book learning, a narrow academic skill, or test-taking smarts. Rather, it reflects a broader and deeper capability for comprehending our Surroundings “catching on”, “making sense” of things, or “figuring out” what to do.” A definition signed by 52 intelligence researchers of “Mainstream Science on Intelligence” in 1994. (From Wikipedia,the free encyclopedia)

David Wechsler: “the aggregate or global capacity of the individual to act purposefully; to think rationally, and to deal effectively with his environment.”

4.3 Intelligence Theories :Smart Speculations over Time

Intelligence is probably the most misunderstood aspect in the domain of psychology. We all seem awed by our perception of it in others .No one can deny its importance in shaping one’s social status, educational opportunities, and career choices. In spite of this great importance attached to it, man since the time of Plato (428BC) and even earlier ages, has been inquiring what intelligence is .Yet, still unable to define it appropriately .Since then, theories have come and gone .Each analyzing the drawbacks of the previous one .Some overlapping and developing

towards a better comprehension of this complex psychological variable. This development in defining intelligence over time can be traced as follows.



4.3.1 Time Period One: “Modern Foundations ” (Mid 19th C).

It was influenced by many great names such as :John Stuart Mill, Francis Galton, and Charles Darwin . John Mill (2002) theorized his “tabula rosa” or blank slate ,stating that all human beings are born with little, if any, intelligence due to nature. He also stated that no genetic or hereditary factors contributed to intelligence. He claimed that nurture of others made the difference in defining the levels of intelligence. It seems, thus, that nurture bears a considerable weight in defining what intelligence is. But according to scholars, denying the role of nature, heredity, and genetics is pure nonsense.

4.3.2 Time Period Two : “The Great Schools ”: (End of 19thC)

Psychologists of this era tried to explain intelligence by “look inside the mind” (Holly Raatz) to describe the way human beings think. Wilhelm Wundt (1832-1920) and John Dewey(1859-1952) presented two significant perspectives in psychology: Structuralism and Functionalism. However, both lacked convincing research methodology.

4.3.3 Time Period Three; ” The Great School’s Influence ”: (Early 20THC)

This era noticed theoretical and empirical research of Intelligence. The experimentations held By Edward lee Thorndike (1874-1949) in the domain of psychology led to the beginning of Intelligence testing. He became a leader in The United States of America in the application of scientific methods of enquiry to psychology and education. In 1932 Charles Spearman (1904), formed his « Two Factor Theory »,in which « g »= GENERAL INTELLECTUAL FACTOR which pervades all intellectual performances, and « s »= SPECIFIC INTELLECTUAL FACTOR each of which is relevant to just one particular task .During this time period a French psychologist , Alfred Binet (1857-1911),who studied under neurologist Freud and Cachot ,was asked by the French Ministry of Education to establish a test to Parisian school children to see who were in need of a special educational treatment. The test was a success in terms of school

results. Since then, the public seems to be convinced that intelligence is what an “intelligence test” measures.

A good example is Marilyn Vos Savant, the individual with the world’s “highest” recorded score on this Intelligence Quotient “I Q” Test. She is often referred to as the most intelligent person in the world. She even has a reserved column called “Ask Marilyn” in many newspapers and periodicals, where she answers people’s questions. Many people read her column and stand in awe of the logical and precise answers she gives. To cut it short, whatever intelligence is, Marilyn seems to have a lot of it.

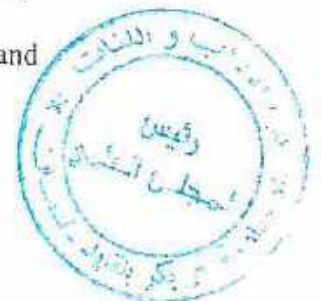
Toward the end of the “Great Schools’ Influence” time period, Jean Piaget, Swiss biologist and philosopher, focused his research on delineating what cognitive structures may be at different stages of development and how they might evolve from one stage to the next.

Piaget developed a cognitive developmental approach to intellectual development, which is an opposing view to that of Binet’s quantitative factor of Intelligence. He was interested in how we think rather than in how much we think, as in the psychometric theories. Piaget theorized that people with the highest levels of intellectual achievements have passed through four separate stages:

- a- Sensorimotor Intelligence. (Found in infants. Intelligence characterized by action.)
- b- Preoperational Thought. (Found in pre-school and elementary school children.)
- c- Concrete operational thought. (Elementary school children-some adolescent and adult populations.)
- d- Formal Operational Thought. (Starts in adolescence for most people)

4.3.4 Time Period Four: “Contemporary Exploration ” (Mid20th C)

The previous influence of “The Great Schools» time period encouraged the furtherance of the “g” intelligence theories and paved the way for many investigations of Intelligence that led to Multiple Intelligence Theories. Its principle shapers were against the theory of general factor. Among them was Louis Thurstone, T. G. Thurstone.





4.3.5 Time Period Five: “Current Efforts ”: (Late 20th till present time)

One of the greatest leaders in this period of time is Howard Gardner. He approaches intelligence from a developmental perspective. He opposes intelligence test scores and rather argues for performance based assessment of Intelligence. He tries to explain “how one is smart rather than how smart one is”. Thus, he developed his Theory of Multiple Intelligences, in which he proposes an alternative definition of intelligence based on a radically different view of the mind. He recognized many different and discrete facets of cognition, and acknowledging that people have different cognitive strengths and contrasting cognitive styles. (Gardner 1993:6)

4.4 Multiple Intelligences Defined.

Many EFL teachers still wonder whether there is a relationship between learning styles and multiple intelligences, and whether they are the same thing or not. For example, we talk about perceptual learning styles, such as visual and kinesthetic, in almost, the same terms as special and bodily-kinesthetic intelligences. There is bound to confusion. The following manifest example sorts out the concepts.

Let's say there are two people who want to develop their musical intelligence. The first person goes to the music store and buys several of his favourite CD's. He takes them home, listens to them, and tries to play what he hears. The second person goes to the music store and buys sheets of composed music. She takes the selection home, studies and reads the music, and then sits down to play. Both of these individuals are working to develop their musical intelligence, but they do it in different ways. The preferred learning style for music for the first person is auditory; whereas, for the second it is visual. The preferred style may vary from task to task.

Multiple Intelligences theory is framed in light of biological origins. In order to arrive at the list of eight intelligences, Gardener consulted evidence from several different sources. He wanted to make a clear distinction between types of intelligence with its biological origins. He

identified the following basic criteria that each intelligence must meet to be considered as intelligence.

4.4.1 Proofs to the Existing Intelligences.

Howard Gardner believes that each intelligence should meet the following criteria to be considered an intelligence.



a- Brain damage.

When people suffer brain damage as a result of an injury, one or many intelligences may be damaged. For example, if a person has a damage in the Broca area (the left frontal lobe) his linguistic intelligence may be greatly affected. The individual may have great trouble reading, writing and speaking, yet still be able to do maths, dance, and sign. Gardner actually proposed eight autonomous brain systems. His premise is that because a person can lose ability in one area while others are spared, there cannot simply be a single intelligence.

b-Exceptional Individual.

Gardner actually proposes eight autonomous brain systems. His premise is that because a person can lose the ability in one while others are spared, there cannot simply be a single intelligence.

c-Developmental History.

Each intelligence has its own developmental history, its time of arising in childhood, its time of peaking during one's life time, and its time of gradual decline. Musical Intelligence for example peaks early, whereas linguistic intelligence can peak very late.

d-Evolutionary History.

Each intelligence has its roots in the evolutionary history of man. Archeological evidence proves the existence of early musical instruments. The drawings of The Pharaohs and those of The Primitive Men in the Tassili are vivid examples of spatial intelligence.

e-Psychological Tests.

Psychological studies have proved that intelligences function separately. For example, subjects may master a specific skill, such as solving arithmetic problems, but can't remember faces. The tasks seem to be independent from each other.



4.5 The Eight Intelligences

Howard Gardner classified the eight Intelligences in accordance to some specific human aspects. These are as follow:

4.5.1. Bodily-Kinesthetic Intelligence.

The ability to use the body to express ideas and feelings and to solve problems. This includes such physical skills as coordination, flexibility, speed and balance.

4.5.2. Intrapersonal Intelligence

The ability to understand one's, strengths, weaknesses, moods, desires, and intentions. This includes such skills as understanding how one is similar or different from others. How to handle one's feelings and how to behave when angry or sad.

4.5.3 Interpersonal Intelligence.

It is concerned with the capacity to understand the intentions, motivations, moods, feelings and desires of others. This includes such abilities as being able to live in a group and to interact effectively within it. Educators, salespeople, religious men and political leaders all need a well-developed interpersonal intelligence.

4.5.4 Linguistic Intelligence

It involves sensitivity to spoken and written language, the ability to learn languages, and the capacity to use language to accomplish certain goals. This intelligence includes the ability to effectively use language to express oneself rhetorically or poetically; and also using language as a means to remember information. Writers, poets, lawyers and speakers are among those that Howard Gardner sees as having high Linguistic Intelligence.

4.5.5. Logical-Mathematical Intelligence.

The ability to use numbers effectively and reason well. This includes such skills as understanding the basic properties of numbers and principles of cause and effect, as well as the ability to predict, using simple machines.

4.5.6. Musical Intelligence.

The ability to sense rhythm, pitch and melody. This includes such skills as the ability to recognize simple songs and to vary speed, tempo, and rhythm in simple melodies.

4.5.7 Spatial Intelligence.

"A sense of Direction" (Brown, p.94), ie, the ability to sense form, shape, colour, line space. It is the ability to "think in pictures", to perceive the visual world accurately, and recreate it in the mind or in the paper. This kind of intelligence is highly developed in artists, architect designers and sculptors.

4.5.8. Naturalist Intelligence.

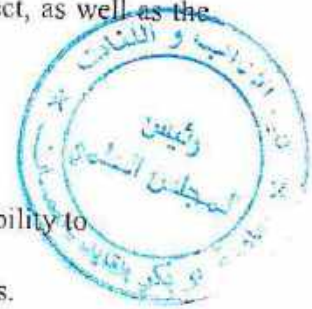
The ability to recognize and classify plants, minerals and animals; including rocks, grass, and all variety of flora and fauna. It is also the ability to recognize cultural artefacts like cars, mobile phones, sneakers...etc.

4.6 Implications of MI in Foreign Language Learning

The reception of the theory of multiple intelligences among educators seems to be very positive. It, in fact, channels a number of educational implications worth stating Armstrong (cited in Christison,98) has synthesized these ideas into four key points that educators find attractive about the theory.

a- Each Person possesses all Eight Intelligences.

Every individual possesses all eight intelligences. They function together in unique ways. Some people have high levels of functioning of almost all intelligences; a few lack the basic aspects of intelligence. Some people are somewhere in between, with some intelligences highly developed, most modestly developed, and one or two underdeveloped.





b- Intelligences can be developed.

Howard Gardner claims that every individual can develop the capacity of each intelligence to a reasonably high level of performance, with appropriate encouragement, enrichment, and instruction.

c. Intelligences Work Together.

Intelligences function together in complex ways. No intelligence exists by itself in life. Intelligences are always interacting with each other. For example, to make a top model dress, a dress maker has to follow instructions in a magazine (linguistic), calculate the right measures (logical mathematical), transform these measures into an artistic realization (visual spatial), struggle to make it attractive to please others (interpersonal intelligence), and for self-satisfaction and fame (intrapersonal intelligence).

d. There are Many different Ways to be Intelligent.

There is no standard list of attributes that one must have to be considered as intelligent.

4.7 Applied MI

Multiple Intelligence Test for Children (see appendix 1) By Nancy Faris.

Based on Howard Gardner's Seven Intelligences/inspired by MI Test by Spencer Barnard -- MAT Program (ONU -- Kankakee, IL) citing this source: Dr. Howard Gardner, C. A. Armstrong, and the Boulder Center of Accelerated Learning .

4.7.1 Population under Study.

The test was applied on first year scientific stream pupils (IAS-S3). A class that embodies 35 pupils of both genders.

4.7.2 Form of the Test.

The test was printed from the internet. It contains 35 statements representing seven intelligences. That is to say, five statements for each intelligence. The intelligences are graded as follows: Linguistic, Logical-Mathematical, Musical, Visual Spatial, Bodily- Kinesthetic,



Interpersonal, and Intrapersonal. (See the Multiple Intelligence test below).

4.7.3 Procedure

First, we handled a sample of the test to each pupil. Next, we attributed a number to each pupil to write on the top of his test paper, just to avoid them write their names to make them feel at ease and give objective answers while doing. Then, the pupils all together read statement after statement silently ticking the ones that matched their profiles. The unclear statements were orally translated into Arabic to ensure a better comprehension and more objective answers.

4.7.4 Analysing Informants' Answers.

At the end of the test, the teacher delivered a speech, explaining that it was a test related to the different intelligences everyone has. He guided them to write the specific intelligence name for each group of statements. Next, he drew a table on the chalkboard (see table1) and told the pupils to copy the same one on the back of their test papers. Then, the teacher told every pupil to count the answers he ticked and write the number under the appropriate intelligence case. After that, the teacher collected the tests and counted the number of answers of each intelligence for the whole class. We got the results shown in (table2).

Finally, the results of the test were represented in a graph that shows the existing intelligences and their rates. (See Graph 1)

4.7.5 Meeting Learners' Needs

If we analyse the graph, we notice that intelligences rank as follows, from the most to the least dominant one: Logical-Mathematical, Interpersonal, Bodily- kinaesthetic, Intrapersonal, Linguistic, Musical, Visual Spatial. Therefore, the kind of tasks that should be presented through lessons to the learners must be those involving the highly represented intelligences in the classroom. Yet, from time to time, the teacher should deal with exercises that favour those less represented intelligences so that to develop them within the group of learners mainly that of linguistic Intelligence which in this case seems to be underdeveloped.

4.7.6 Suggested Tasks for each Kind of Intelligence.

a- Logical Mathematical Intelligence:

- Activities involving logic such as “conditional type Zero”. Practice of a grammatical rules through scientific phenomenon.

Example: If you put water on fire, It boils.

- Activities that involve numbers, calculations and so on.

b- Interpersonal Intelligence

It can involve collaborative activities such as:

-Dialogues.

-Project workshops.

-Pair Work/Group Work.

-Solving problems and resolving conflicts.

c-Bodily-Kinaesthetic Intelligence

Activities that involve the body.

-Using gestures, mimes, touches.

-Transforming teacher’s or mate’s gestures into meaningful sentences.

d-Intrapersonal Intelligence.

Teacher should encourage pupils to keep diaries.

-Have pupils take responsibility for their own learning by doing some extensive reading to topics of their choice and that match their personal interests. Let them summarize what they have read, too.

e-Linguistic Intelligence:

-Teachers can help pupils develop their linguistic intelligence by:

-Providing things to look at, listen to, and write about.

-Creating opportunities for interaction among pupils and between pupils and teacher.



f-Musical Intelligence

- Use of songs and poems.
- Drills for pronunciation such as words that rhyme and homonyms.

G-Visual Spatial Intelligence:

- Using visual aids such as: charts ,maps, pictures etc...
- Producing words or sentences through examining pictures.

h. Naturalist Intelligence:

- Speaking about the world outside the classroom.(Mobile phones-New cars-Fashion and different marks of clothes...)

4.8 Conclusion

The understanding of learning principles that have been presented and the various ways of understanding what intelligence is, lead to say that there are aspects of language learning that may call upon a conditioning process; other aspects require meaningful cognitive process; others depend upon the security of supportive fellow learners interacting freely and willingly with one another. Still others are related to one's total intellectual structure .Each aspect is important, but there is no consistent combination of theories that works for every context of Second/Foreign Language Learning. The theory of "Multiple Intelligences" has been principally based upon findings in the biological and cognitive sciences, and it first needs to be thoroughly discussed and tested in those areas before it provides a handbook or a white paper for any practitioner in the field of education. Even good ideas have been ruined by premature attempts at implementation, and no one is totally certain of the goodness of the idea of multiple intelligences.



APPENDIX 1: Multiple Intelligence Test for Children By Nancy Faris

Answer the following questions by checking on the sentences that are most like you.



Multiple Intelligence Inventory for Adults

by Nancy Faris, <http://www.mitest.com/o7inte-1.htm>

Directions: Fill in the bubble of the sentences that **STRONGLY** resemble you.

- 1 I easily remember nice turns of phrase or memorable quotes and use them deftly in conversation
- 2 My library of books is among my most precious possessions
- 3 I can hear words in my head before I read, speak, or write them down
- 4 I get more out of listening to news on the radio and hearing books on cassette than I do from watching TV
- 5 I am a master when it comes to word games like Scrabble or Password
- 6 I enjoy entertaining others with tongue twisters, nonsense, rhymes or puns
- 7 Other people sometimes have to stop and ask me to explain the meaning of words I use in my writing and speaking
- 8 English, social studies, and history are easier for me in school than math and science
- 9 When I'm driving a freeway, I pay more attention to the words written on billboards than to the scenery
- 10 My conversation is peppered with frequent references to things that I have read
- 11 I have written something recently that I was particularly proud of or that earned me special recognition by others
- 12 I catch other people's errors in using words or grammar even if I don't correct them
- 13 I am fascinated by scientific and philosophical questions like "When did time begin?"
- 14 I can easily double or triple a cooking recipe or carpentry measurement without having to put it all down on paper
- 15 Math and science were among my favorite subjects in school
- 16 I frequently beat my friends in chess, checkers, Go, or other strategy games
- 17 I like to set up little "what if experiments" (e.g., what would happen if I double the amount of plant food that I feed to my plants at home?)
- 18 People sometimes tell me that I have a very computer-like mind
- 19 I organize things in my bedroom, study, and at my desk according to categories and patterns
- 20 I believe that almost everything has a rational explanation
- 21 I wonder a lot about how certain things work
- 22 I like finding logical flaws in the things that people say and do at home and work
- 23 I sometimes think in clear, abstract, wordless, imageless concepts
- 24 I feel more comfortable when something has been measured, categorized, analyzed or quantified
- 25 I enjoy music and have favorite performers
- 26 People say that I have a pleasant singing voice
- 27 I can tell when a musical note is off-key
- 28 My collection of cassettes and compact discs is among my most treasured possessions
- 29 I play a musical instrument
- 30 My life would be impoverished if there was no music in it
- 31 I catch myself sometimes walking down the street with a television, video or other tune running obsessively through my mind
- 32 I can easily keep time to a piece of music with a simple percussion instrument
- 33 I know the tunes to many different songs or musical pieces
- 34 If I hear a musical selection once or twice I am usually able to sing it back fairly accurately
- 35 I often make tapping sounds or sing melodies while working, studying, or learning something new
- 36 I sometimes enjoy different sounds in my environment
- 37 I can remember in detail the layout and landmarks of places I've visited on vacations
- 38 I often see clear visual images when I close my eyes
- 39 I am usually sensitive to color
- 40 I have a camera or camcorder that I use to record what I see around me
- 41 I can easily solve jigsaw puzzles, mazes and other visual puzzles
- 42 I sometimes have vivid dreams at night

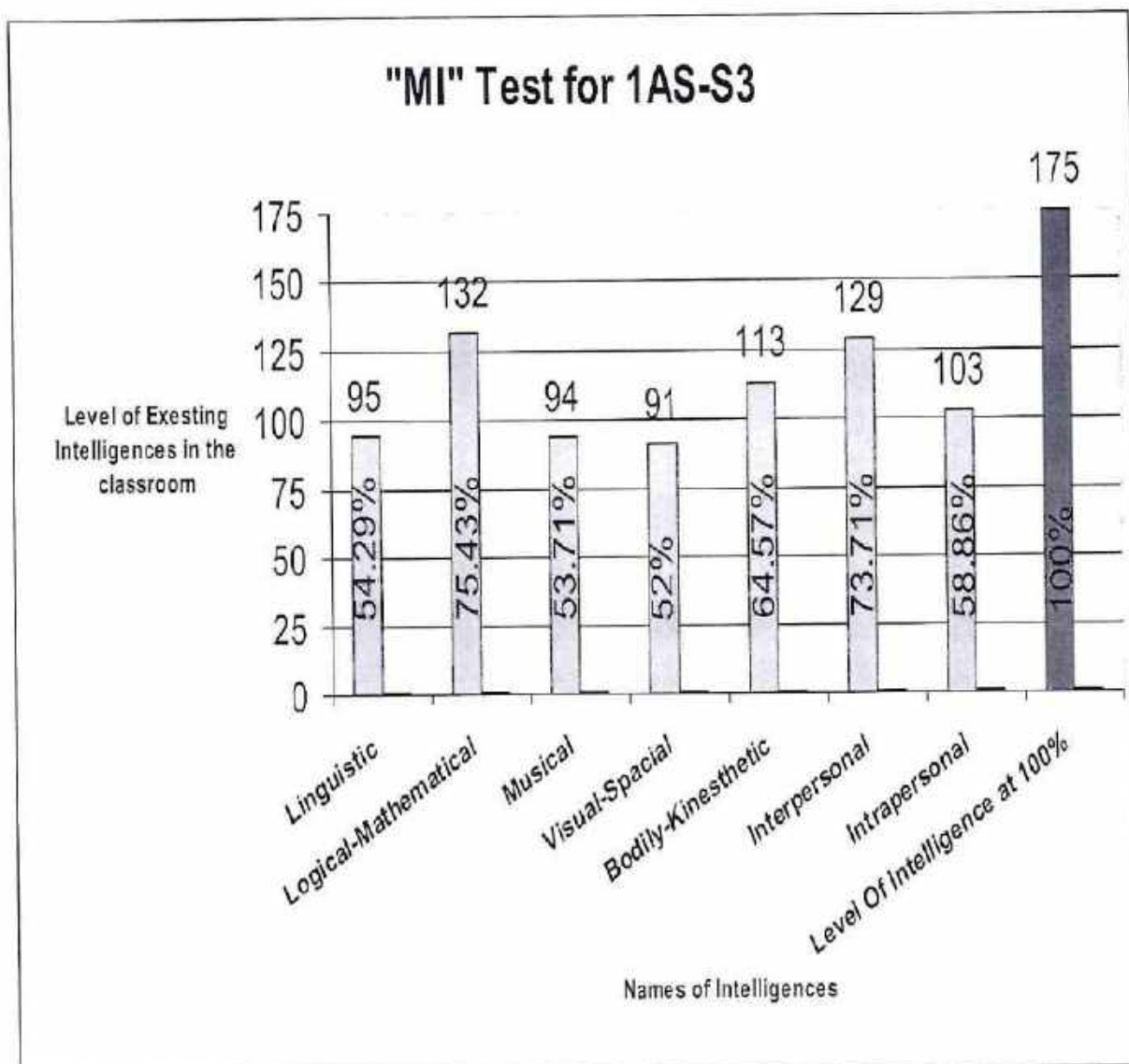
Appendix 2 : (Table 1-a sample of a pupil's answer)

Linguistic Intelligence	Logical Mathematical Intelligence	Musical Intelligence	Visual Spatial Intelligence	Bodily-Kinesthetic Intelligence	Interpersonal Intelligence	Intrapersonal Intelligence
4/5	2/5	5/5	2/5	4/5	4/5	3/5

Appendix 3: (Table 2-the whole class number of answers for each intelligence)

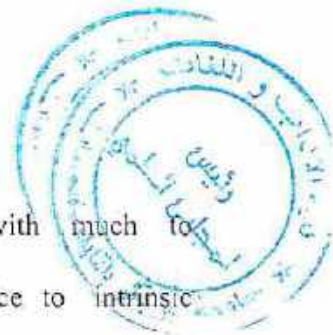
Linguistic Intelligence	Logical Mathematical Intelligence	Musical Intelligence	Visual Spatial Intelligence	Bodily-Kinesthetic Intelligence	Interpersonal Intelligence	Intrapersonal Intelligence
95/175	132/175	94/175	91/175	113/175	129/175	103/175





Appendix 4: Figure 1: Results of existing Intelligences in the classroom





5. Motivation and its Role in Learning

Chomsky considered linguistic as a branch of human psychology with much to contribute to a "Theory of acquisition of knowledge that gives due place to intrinsic mental activity"(Chomsky,1998). Psychology is an important aspect to take account in language acquisition. Language learners are affected by different variables in language study. These psychological variables can have a positive or negative influence on the foreign language learners. These variables are: motivation, aptitude, attitude, anxiety and intelligence. Motivation which is our subject matter, has closer relationship with other variables; without such motivation, we will certainly fail to make the necessary effort in acquiring a language. If motivation is so important, therefore, it makes sense to try and to develop our understanding of it. Are all students motivated in the same way? What are there different sources of motivation? What is the teacher's role in student's motivation? How can motivation be sustained? These are the questions that are going to be clarified in what follows.

5.1 Defining Motivation

The word is derived from Latin term "Motivus" (" a moving cause"), which suggests the activating properties of the processes involved in psychological motivation.

To motivate is "to make somebody want to do something, especially something that involves hard work and effort."(Oxford Dictionary,2001)

Motivation is some kind of internal drive which pushes someone to do things in order to achieve something. Motivation is considered as the most important factor in success or failure at language learning. A well-motivated student badly taught will probably do better than a poorly-motivated student well taught. Motivation is one of the two key learner characteristics that determine the rate and the success of foreign language(L2) learning(the other being APTITUDE); motivation provides the primary impetus to embark

upon learning, and the later, the driving force to sustain the long and often tedious learning process.

5.2 Approaches to L2 Motivation

5.2.1 The Social Psychological Approach

The systematic study of L2 motivation goes back to the late 1950s when two social psychologists in Canada, Robert Gardner and Wallace Lambert, launched a series of studies examining how language learners' attitudes towards the L2 speaking community affected the desire to learn the L2. Gardner and Lambert followed a social psychological approach, that's to say, they focussed on the influences of the social context and the relational patterns between the language communities, as measured by means of the individual's social attitudes.

The original hypothesis that "students' attitudes towards the specific language group are bound to influence how successful they will be in incorporating aspects of that language"(Gardner et.al,1985:6) was highly supported in investigations carried out by Gardner and his Canadian associates, and by other researchers in different parts of the world. The researches were based on a social psychological approach because L2 learning is not a socially neutral field, thus L2 motivation is not directly comparable to that of the mastery of other subject matters. Knowing an L2 also involves the development of some sort of 'L2 identity' which means a socio cultural angle.

Current educational psychology always focuses on environmental and cognitive factors when investigating learning motivation. But L2 motivation also contains a featured social dimension. The significance of this dimension is explained by the fact that most nations in the world are multicultural and the majority of people in the world speak at least one second language.

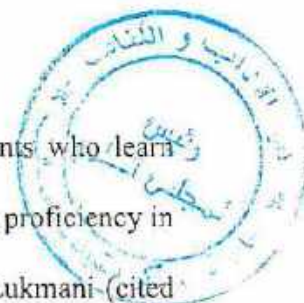
According to Gardner (1985), motivation subsumes three components: motivational intensity, the desire to learn the language, and attitudes toward learning the language. In his view, motivation refers to a kind of central mental 'engine' or 'energy centre' that subsumes



effort, want/will and task-enjoyment (affect). This motivation engine can be switched by a number of motivational stimuli, such as desire to communicate with members of the L2 community, the prospects of a good job that requires L2 proficiency, or at school for a particular test or an involving instructional task. Gardner sees these 'triggers' as motivational antecedents rather than motivation itself. Gardner's theory of motivation consists of a dichotomy of integrative motivation and instrumental motivation.

- **Instrumental motivation:** refers to the functional reasons for learning a language as the means of attaining certain instrumental goals e.g getting a job, reading technical materials, passing examinations. Instrumental motivation is related to the pragmatic gains of L2 proficiency.
- **Integrative motivation:** associated with a positive disposition toward the L2 group and the desire to interact with, and even become similar to valued members of that community. Graham (cited in Brown, 1987:1702) makes a more advanced division of integrative orientation. The division was made according to the intensity of identifying with the target language community:
 - **Integrative orientation:** the desire on the part of a language learner to learn the second language in order to communicate with, or find out about, members of the second language culture, which does not necessarily imply direct contact with the second language group.
 - **Assimilative orientation:** the drive to become an indistinguishable member of a speech community, usually requiring prolonged contact with the second language culture.

However, there is no clear cut separation between these orientations. Gardner and Lambert developed their original integrative motivation construct from Mowrer's (1956) theory of successful first language acquisition. Mowrer believed that the process of child language is successful when it is attributable to his/her quest for identity, first amongst family members and later with members of his/her speech community. That's why, at the beginning of their research in Canada and the USA, Gardner and Lambert claimed that integrative-motivated learners are successful because they are active learners compared to instrumentally-motivated ones. However, not all empirical evidence supports the superiority of the integrative motivation. For example, in their 1970 motivation research in the multi-ethnic Philippines where English, although hardly ever used as a home language, has become the major language of instruction and



is the most prestigious language of all, Gardner and Lambert found that students who learn English with an instrumental motivation are clearly more successful in developing proficiency in this language than those who learn the language with an integrative motivation. Lukmani (cited in Young, 1994) demonstrated that among Marathi-speaking Indian students learning English in India, those with instrumental motivation scored higher in tests of English proficiency. It has been demonstrated that English, mainly in Third World Countries where it has become an international language, can be acquired very successfully for instrumental reasons.

Au (1988) reviewed twenty-seven different studies of the integrative-instrumental construct and concluded that the instruments used to measure motivation were suspect. Since the dichotomy is based on cultural beliefs and attitudes towards the foreign language, it is difficult to attribute foreign language success to either integrative or instrumental causes. Oller and Au summarised their empirical studies on the relationship between integrative motivation and language proficiency, finding four different results : positive, nil, negative and interpretable/ambiguous(Au,1988). Oller et al., (1977) concludes that such results show the relationships among attitudinal and motivational variables and learning achievements are an 'unstable non-linear function that varies greatly across individual, contexts, and learning task.' Gardner(1985:76) himself acknowledged these unstable relationships because '...not everyone who values another community positively will necessarily want to learn their language.' The disparity between these studies on motivational orientation can be attributed to two sources:

- ❖ The ambiguity of definitions and concepts such as integrative and instrumental orientations in some of the studies.
- ❖ The influence of the language environment on the individual orientations.

Because of these conflicting results, Gardner made a distinction between orientation and motivation. Gardner redefines motivation as a combination of 'effort plus desire to achieve the goal of learning the language plus favourable attitudes toward learning the language'(Gardner 1985:10).Here motivation in learning the language includes four components: a goal orientation of learning a language; a desire for learning- whatever the reason; effort and persistence in

learning the language; and positive attitudes towards learning it. With regard to orientations, Gardner and McIntyre (1991) refer to the reasons for learning a second language. They assert:

It has been shown repeatedly that it is not so much the orientation that promotes the student's achievement but rather the motivation. If an integrative or instrumental orientation is not linked with heightened motivation to learn the second language, it is difficult to see how either could promote proficiency (cited in Young, 1994:37)

Gardner and Lambert who focussed on the superiority of integrative motivation in learning a foreign language, amended their original hypothesis and indicate that even instrumental motivation is effective in SL or FL learning in some contexts.

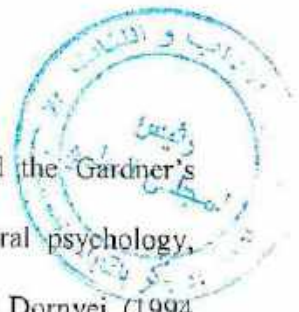
Gardner's (1985) introduced the following terminology in terms of motivation models:

- ❖ Orientation: the needs and goals to learn a foreign language, including integrative and instrumental orientations.
- ❖ Attitudes: referring to attitudes towards learning which, in the context of foreign language learning, includes attitudes to foreign languages in general, to the speakers of the target language, to learning language, to the language teacher, and to the language course.
- ❖ Motivation: the efforts made to achieve the goals including motivation intensity and desire to learn.

5.2.2 New Approaches in L2 Motivation

Gardner looked at L2 motivation from a social perspective, considering it as a function of intergroup relations and a powerful factor to enhance or hinder Intercultural Communication. A further problem with instrumental/integrative dichotomy is that it is not directly applicable to foreign language learning, 'which involves learning the target language in institutional academic settings without regularly interacting with the target language community' (Dornyei,1990:46). In the 1990s, arguing that the old characterisation of motivation in terms of social psychology is too





static, some researchers (Crookes and Schmidt, 1991) have tried to extend the Gardner's constructs by adding new components adopted from other disciplines, general psychology, industrial psychology, educational psychology and cognitive psychology. As Dornyei (1994 :273) states, 'while acknowledging unanimously the fundamental importance of the Gardner's social psychological mode, researchers were also calling for a more pragmatic, education-centred approach to motivation research, which would be consistent with the perceptions of practising teachers and which would also be in line with the current results of mainstream educational psychological research'.

So, the new studies of motivation focus more on the classroom settings. In an overview of the 'new wave' of motivation research, Dornyei (1998) reviewed over eighty relevant L2 studies from the 1990s. In these studies, two general tendencies are clearly observable:

- a- By paying more attention to motivational processes underlying instructed language learning (rather than L2 acquisition in natural contexts), researchers tried to make motivation more relevant for classroom application.
- b- There was a general endeavour to develop extended motivational paradigms by complementing the social psychological approach with a number of cognitive concepts.

Crookes and Schmidt (1991) are the first researchers who extended Gardner research on motivation. They used Keller's A.R.C.S model of motivation (ARCS model is John Keller's model for motivational design. ARCS stands for attention, relevance, confidence and satisfaction. They are the four major categories of motivational strategies) to list the four determinants of motivation. First is interest, described as 'positive response to stimuli on the basis of existing cognitive structures such that learner's curiosity is aroused and sustained'. The second, relevance, a prerequisite for sustained motivation, requires the perception of the learners that their personal needs are satisfied by the learning situation. The third determinant is expectancy, which, 'draws upon research based on the concepts of locus of control,

expectation for success, and attributions concerning success or failure'. The last determinant is reward or punishment, or outcome which are referred to as extrinsic incentives to learning.

Even Gardner and Tremblay (1995) introduced integrated important cognitive concepts such as goal salience, valence (i.e., incentive value) and self-efficacy as mediating variables between language attitudes and motivational behaviour.

The two most elaborate frameworks of L2 motivation have been presented by Dornyei (1994) and William and Burden (1997) and are presented in figure 1 and 2. Both contain a list of motivational components, categorising them in broad clusters, without, however, defining directional relationships between them.

Table 1: Dornyei's (1994) framework of L2 motivation

LANGUAGE LEVEL	Integrative motivational subsystem Instrumental motivational subsystem
LEARNER LEVEL	Need for achievement Self-confidence * Language use anxiety * Perceived L2 competence * Causal attributions * Self-efficacy
LEARNING SITUATION LEVEL	
<i>Course-specific Motivational Components</i>	Interest (in the course) Relevance (of the course to one's needs) Expectancy (of success) Satisfaction (one has in the outcome)
<i>Teacher-Specific Motivational Components</i>	Affiliation motive Authority type Direct socialisation of motivation * Modelling * Task presentation * Feedback
<i>Group-Specific Motivational Components</i>	Goal-orientedness Norm and reward system Group cohesiveness Classroom goal structure





Table 2: Williams and Burden's (1997) framework of L2 motivation

INTERNAL FACTORS	EXTERNAL FACTORS
<p>Intrinsic interest of activity</p> <ul style="list-style-type: none"> • Arousal of curiosity • Optimal degree of challenge <p>Perceived value of activity</p> <ul style="list-style-type: none"> • Personal relevance • Anticipated value of outcomes • Intrinsic value attributed to the activity <p>Sense of agency</p> <ul style="list-style-type: none"> • Locus of causality • Locus of control RE process and outcomes • Ability to set appropriate goals <p>Mastery</p> <ul style="list-style-type: none"> • Feelings of competence • Awareness of developing skills and mastery in a chosen area • Self-efficacy <p>Self-concept</p> <ul style="list-style-type: none"> • Realistic awareness of personal strengths and weaknesses in skills required • Personal definitions and judgements of success and failure • Self-worth concern • Learned helplessness <p>Attitudes</p> <ul style="list-style-type: none"> • to language learning in general • to the target language • to the target language community and culture <p>Other affective states</p> <ul style="list-style-type: none"> • Confidence • Anxiety, fear <p>Developmental age and stage</p> <p>Gender</p>	<p>Significant others</p> <ul style="list-style-type: none"> • Parents • Teachers • Peers <p>The nature of interaction with significant others</p> <ul style="list-style-type: none"> • Mediated learning experiences • The nature and amount of feedback • Rewards • The nature and amount of appropriate praise • Punishments, sanctions <p>The learning environment</p> <ul style="list-style-type: none"> • Comfort • Resources • Time of day, week, year • Size of class and school • Class and school ethos <p>The broader context</p> <ul style="list-style-type: none"> • Wider family networks • The local education system • Conflicting interests • Cultural norms • Societal expectations and attitudes

Another important construct of motivation that deserves special attention is the theory of intrinsic and extrinsic motivation. The dichotomy was introduced by Deci and Ryan (1985). Edward Deci (1975:23) defined intrinsic motivation, 'Intrinsically motivated activities are ones for which there is no apparent reward except the activity itself. People seem to engage in the activities for their own sake and not because they lead to an intrinsic reward...Intrinsically motivated behaviours are aimed at bringing about certain internally rewarding consequences, namely, feelings of competence and self-determination.'

Extrinsic motivation is encouragement from an outside force; behaviour is performed based on the expectance of an outside reward. Extrinsic motivation in the classroom is when the learner gets a reward. According to M.Ryan and E.Deci (2008), cognitive evaluation theory is

not a theory of rewards but rather of how factors affecting perceived autonomy and perceived competence influence intrinsic motivation. Rewards for desirable academic performance or effort at the classroom level, generally include:

- Praise (and other verbal reinforcement) for correct responses during class discussions, improved test scores.
- Symbolic rewards-, such as, gold stars, having one's picture on a bulletin board...
- Tangible rewards – such as toys, books....
- Activity rewards- such as free time, being leader of an activity, trip....



Cameron and Pierce clarified the fact that rewards can produce positive or negative effects on intrinsic motivation.

- Rewards can be used to maintain or enhance students' intrinsic interest.
- Verbal praise increases the value of an activity.
- Tangible rewards (contingent) on level of performance maintain students' motivation.
- The ways the rewards are administered may have a positive or negative effect on intrinsic motivation.

Researchers who focussed on the effects of rewards had great difficulty to distinguish between types of reward structures. Task-non contingent rewards (which are given whether or not one does what is requested), versus task-contingent rewards (which are given only if one successfully carries out the requested activity) have different effects on intrinsic motivation. A study conducted by Deci (1972) found that task-contingent rewards undermined intrinsic motivation, but task-non contingent rewards did not.



It is also very important to distinguish the intrinsic-extrinsic construct from Gardner's integrative-instrumental motivation. Many instances of intrinsic motivation can be integrative, some are not. For example, one could for highly developed intrinsic purposes, wish to learn a foreign language in order to succeed in an academic program. So, one could develop a positive affect toward the speakers of a second language for extrinsic reasons: parental reinforcement, teacher's encouragement, etc. The intrinsic-extrinsic dichotomy is applicable to foreign language classrooms around the world.

Intrinsic-extrinsic factors can be easily identified; whereas instrumental and integrative ones are not; mainly that there can be significant individual variation in motivation. An extreme case is that of Louis Wolfson (1970).

Wolfson was a schizophrenic who hated and feared his mother. In particular he hated her voice and, hence, his mother's native language, which was his own native language, American English. To escape this pain, he learned other languages, primarily Hebrew, German, Russian, and French (the language in which he wrote his story).

He experiences an eating/speaking duality and transposes it into propositions, or rather, into two sorts of language: his mother tongue (English), which is essentially alimentary and excremental, and foreign languages, which are essentially expressive and which he strives to acquire. In order to hinder the progress of his study of foreign languages, his mother threatens him in two equivalent ways: either she waves before him tempting but indigestible foods packaged in cans, or else she jumps out at him suddenly and abruptly speaks English to him before he has time to plug his ears.

He fends off this double threat with a set of ever more perfected procedures. He eats like a glutton, stuffs himself with food, and stomps on the cans, all the while repeating several foreign words. At a deeper level, he establishes a resonance between the alimentary and expressive series, and a conversion from one to the other, by translating English words into foreign words

according to their phonetic elements (consonants being the most important). For example, tree is converted by use of the R that appears in the French vocable (*arbre*).

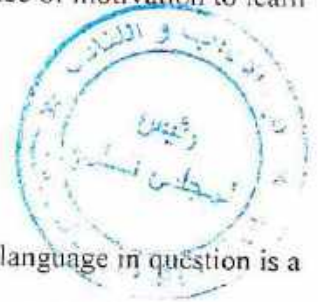
What is exemplified in this description is certainly an unusual instance of motivation to learn other languages (Lakshmanan and Larry Selinker, 1994).

5.3 Motivation Strategies

A feature shared in most foreign language classrooms where the language in question is a required school subject, is the problem of lack of motivation. The following behaviours described by Chambers (1993:13) are familiar to many foreign language teachers, 'poor concentration; lack of belief in own capabilities; no effort made to learn; what's the use? Syndrome; negative or nil response to praise; lethargy; lack of cooperation; disruptive; distracted; distracts other pupils; produces little or no homework; fails to bring materials to lessons; claims to have lost materials.

One of the reasons for students' low motivation in English learning is that it is a compulsory school subject. Despite the importance of English in the business world, it has little to do with daily life of our students. In Britain, as chambers (1994) points out, one of the causes of lack of motivation is that 'some pupils find difficulty in seeing the point in learning other languages, when everyone seems to manage with English'(p.14).The fact that speakers of other languages will be strongly motivated to learn English is not true.

Teachers on their part should follow strategies that help them to impact motivation in their classrooms. Researchers found empirical evidence for several meaningful links between the relationship between students' intrinsic/extrinsic motivation to learn the foreign language and their language teachers' communicative style, the most important being a democratic (autonomy-supporting) teaching style fosters intrinsic motivation.



There are a variety of specific actions that teachers can take to increase motivation on classroom tasks. In general, these fall into the two categories: intrinsic motivation and extrinsic motivation.

Table 3: Impacting Motivation in Classroom

Intrinsic	Extrinsic
<ul style="list-style-type: none"> • Explain or show why learning a particular content or skill is important • Create and/or maintain curiosity • Provide a variety of activities and sensory stimulations • Provide games and simulations • Set goals for learning • Relate learning to student needs • Help student develop plan of action 	<ul style="list-style-type: none"> • Provide clear expectations • Give corrective feedback • Provide valuable rewards • Make rewards available

As seen in the table above, researchers consider strategies for impacting intrinsic motivation more important; mainly there are many problems with extrinsic motivation.

a. Problems With Extrinsic Motivation

- Extrinsic rewards do not produce permanent changes
- Extrinsic rewards reduce intrinsic interest
- Extrinsic rewards can be controlling

b. Specific Classroom Management Methods

❖ Fostering Student Autonomy

- provide choices
- minimize pressure
- allow alternative solutions

❖ Understanding The Children

- encourage originality
- promote success
- be aware of their interests

❖ Engaging Curriculum



- make lessons stimulating
- create meaningful lessons
- focus on learning
- ❖ Creating Community
- develop rules together
- allow rituals and celebrations
- use positive feedback

c. Factors That Encourage Intrinsic Motivation

- Control orientation of the teacher
- Teachers' understanding of their students
- Intrinsically motivating curriculum
- Creating a community



5.4 EFL Teaching Materials and Motivation

The use of appealing materials may enhance the learner motivation. The learner is generally attracted by a coursebook that contains something that he wants to learn. English should come over as a means of conveying messages of consequence and relevance and as a means through which one's experience is enriched and widened. Thus, textbooks should be designed on the basis of a whole-person approach to learning; an approach that derived from the humanistic movement in education. It is concerned with bringing into play all aspects of the learner's personality, and not just the cognitive or intellectual side. The emphasis should be placed on the learner's expression of his feelings. According to Stevick(1980) EFL materials should provide occasions for students to interact with one another. Realism is also another criteria for textbooks that may enhance someone to learn English either as a second or a foreign language.

5.5 Case Studies in Different Countries

'Just my whole body feels like I want to throw up or something, if I don't like something...I can't do it at all....I feel like sick, and I feel so sick...My body feels completely wrong' That's

what Marcel, a fifth grade student said when he described how he felt when he was not able to do an assignment. So, understanding students helps to find techniques that sustain motivation in the learning classroom.

5.5.1 Case Study In Malaysia

Title of the Paper: Sustaining an interest in learning English and increasing the motivation to learn English: An enrichment program. (Supyan Hussin, Nooreiny Maarof, and J. V. D'Cruz)
Universiti Kebangsaan Malaysia (Malaysia)

The paper was originally presented at The Millennium MICELT 2000, 3rd Malaysia International Conference for English Language Teaching, 15-17 May 2000, Melaka, organized by University Putra Malaysia.

A persistent problem faced by many English teachers, is the attempt to sustain interest in continuing to learn English and to use the English language once the examinations are over. Teachers have to create a balance between preparing students for the standardized examinations and for life-long language skills. One solution suggested by teachers of English in Malaysia is to develop a continuous program which includes an integrated in-class and out-of class language activities that help nurture student language skills. The program requires the retraining of in-service teachers. They are provided with a framework within which they can apply new techniques in language teaching. The presenters will conduct a retraining of 77 teachers in Pahang. Feedback received from the training group supports the use of enrichment programs, which can make use of on-going activities within the school English curriculum. When asked about the teaching methods they used in teaching English, most of teachers were adopting for approaches which focus on forms and accuracy of the students' output or performance. Despite exposure to training in the communicative approach, many teachers still avoid practicing the approach because the communicative component i-e oral communication makes up only ten percent of the exam score on the English test in Malaysian schools. Thus, students become good test-takers, and yet are unable to speak. Besides English is taught in an environment (rural)





where the its input is limited. So teachers had to find creative ways to teach the language and increase the students' motivation.

Teachers who conducted the research believed that any teacher of English should have a knowledge of the existing language teaching methodologies, but it's more important to know what the most appropriate approach to teaching the language in a particular environment is.

The research conducted in Malaysia (in the Maran District) was based on theories of motivation that were introduced by Gardner and Lambert. The presenters also focused on the fact that motivation is not a single entity, but as a multi-factorial one. The research was based on the six factors that impact motivation. They were introduced by Oxford and Shearin (1994).

- Attitudes (i.e., sentiments toward the learning community and the target language)
- Beliefs about self (i.e., expectancies about one's attitudes to succeed, self-efficacy, and anxiety)
- Goals (perceived clarity and relevance of learning goals as reasons for learning)
- Involvement (i.e., extent to which the learner actively and consciously participates in the language learning process)
- Environmental support (i.e., extent of teacher and peer support, and the integration of cultural and outside-of-class support into learning experience)
- Personal attributes (i.e., aptitude, age, sex, and previous language learning experience).

Teachers also insisted on the fact that the language enrichment program they were going to elaborate should not be seen as separate from the school curriculum. Instead it needs to complement and strengthen the development of language proficiency of students in schools. Therefore, what happens in the language classrooms must be extended beyond the walls so that a link is created between what is learned in the classrooms with what occurs outside the classrooms. The aim of the teachers is to create a balance between the immediate needs of examinations and the long-term needs of communicative competence.

Tasks and activities that require active participation of the learners were prepared. Some examples of such activities:

- a reading program with such tasks as writing a synopsis, journal, and compiling vocabulary lists
- language immersion projects such as language camps and visits
- a specific day or week or month or time and space devoted to the use of the language such as story-telling corner, poetry reading at the general assembly, etc.
- a network of people who could provide the constant input of the language such as pen pals, teacher mentors, conversation partners and so forth.



These activities are supported by classroom or school environments that provide simple strategies to encourage the use of the language such as murals, labels in and around the school, consistent exposure to language competitions (choral speaking, scrabble, etc.) and English notice board (interactive in that learners can pose questions or reply to questions). All these need to be given acknowledgment and recognition in the form of rewards and encouragement (e.g. prizes, public mention, etc.) to motivate and sustain interest in the use of the language.

Teachers also focused more on the process of learning rather than the performance of learning.

The teachers were divided into three workshops (primary, lower, and secondary). The contents of the workshops were as follow:

-Part One: The first part consisted of an introductory session in which a number of ice-breaking activities were provided to make the participants feel into ease.

-Part Two: In the second part of the workshops, teachers were asked to answer a written survey on common terminology and concepts related to ESL teaching and learning; such as ESP, ESL, Audio-lingual Method and so forth. A facilitator presented information about language learning and teaching. Teachers devoted some time to reflect about their roles and their professional development.



-Part Three: The third part of the workshop involved a series of presentations by the facilitators on guidelines and tips on how to assist students in preparation for the examinations. The session was requested by the organizers for they wanted the teachers to be further exposed to various test-taking strategies and techniques which would help the teachers manage the preparation of students for the standardized examinations.

It was a revealing discovery for many teachers, for a majority had shifted their view on the roles of teachers and students from being teacher-centered to one which is more student-centered and humanistic. At the end of the workshops, the teachers seemed convinced to a certain extent that simple and short activities, both in-class and out-of class, are worth attempting even within a serious exam-oriented syllabus.

5.5.2 Case Study in South Korea

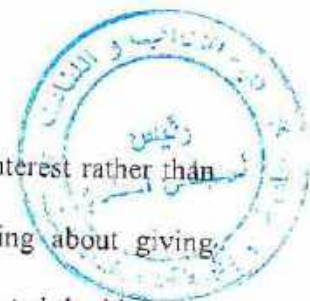
Title of the Paper: Motivating Learners at South Korean Universities by (Janet S.Niederhauser, 1997)

Janet S. Niederhauser is an Assistant Professor of English at Honan University in Kwangju, South Korea. She has previously taught German at Northwestern and Ohio State Universities in the United States, and both English and German at Yonsei University in Seoul, South Korea.

Students at many universities often fail to reach their full potential as English language learners due to low motivation. Some of the factors that affect their motivation relate to the country's education system in general. This case study will draw examples from the South Korean context, it is assumed that the problems described and the solutions proposed can be applied to contexts worldwide.

a-Sources of low motivation in the Korean context

1-Low motivation among Korean students is due to the relative lack of difficulty they face in fulfilling their college graduation requirements. Grading is generous and often based on factors unrelated to academic achievement.



2- The inability of students to choose their majors on the basis of personal interest rather than entrance examination scores. Although Korean universities now are talking about giving students greater freedom in choosing their majors, only one institution has adopted the idea thus far.

3-Gender: Large numbers of Korean women traditionally major in foreign languages, but many are not highly motivated due to the scarcity of well-paying career opportunities for female graduates and to parental pressure to marry upon graduation.

4- Prior knowledge of the language: Before university studies, Korean students should have completed six years of English classes, yet most of the are unable to speak or write free mistake sentences.

5-Korean attitudes toward foreign languages: courses that focus on understanding other cultures are relatively missing in the Korean teaching context.

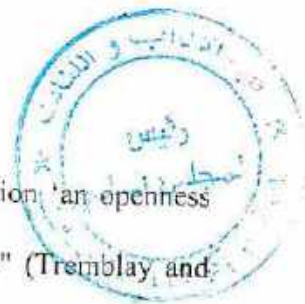
c- Strategies for Raising Student Motivation

In spite of the array of factors that tend to reduce language learning motivation, teachers working in Korea can use a number of strategies to increase their students' self-confidence and interest in English. These motivational strategies are recommended by Crystal Kuykendall (1992) and ideas of Janet S. Niederhauser for her EFL classroom

1-Teachers can help students view language learning within the context of their individual goals and help them map out strategies they can use to overcome their language-learning difficulties. The importance of setting specific goals as opposed to the general goal of "doing one's best" has been stressed by Tremblay and Gardner (1995:515) and other researchers. Oxford, Park-Oh, Ito, and Sumrall (1993: 369), for example, emphasize the importance of selecting classroom activities that "students see as leading toward their personal learning goals." Even female students who do not plan to pursue careers after graduation can develop a greater interest in their studies if they are able to connect foreign language learning to personal goals such as the desire to travel abroad or to read English language publications.



- 2-Testing different kinds of group activities may help teachers find the right mix for a specific class. For example, teachers can use a pair-monitor technique recommended by Alice Omaggio-Hadley (in Young 1992:165) in order to give Korean students the extra guidance in correct usage they expect. In this technique, a third student is given a card containing the correct forms for a pair conversation based on selected language cues. The third student acts as group monitor and provides feedback to the students working in pairs. As they move from group to group, teachers listening in on the pair conversations can help students overcome their preoccupation with errors in form by rewarding them for good communication as well as correct usage.
- 3-Teachers also should introduce all new activities carefully and explain how they can help students improve their English skills. Motivation levels drop and anxiety levels go up when students are unsure about how or why they should perform certain language tasks. Making positive statements about upcoming activities, moreover, is an excellent way to increase motivation. By saying, "I think you're really going to enjoy our next activity," and meaning it, teachers convey an enthusiasm that is contagious. Teachers also should introduce all new activities carefully and explain how they can help students improve their English skills. Motivation levels drop and anxiety levels go up when students are unsure about how or why they should perform certain language tasks. Making positive statements about upcoming activities, moreover, is an excellent way to increase motivation. By saying, "I think you're really going to enjoy our next activity," and meaning it, teachers convey an enthusiasm that is contagious.
- 4-Many Korean students view writing assignments as translation projects. (Translation Method used in their middle and high school English classes). By encouraging students to begin thinking in English when they write and by explaining why this is useful, teachers will be helping students overcome poor language learning habits. Research has shown that strategy training is most effective when it is made explicit and treated as a regular part of the students' classroom experience (Oxford 1992:19).



5-A positive attitude toward the language may enhance the students' motivation, "an openness and positive regard for other groups and for groups that speak the language" (Tremblay and Gardner 1995:506) are powerful influences on language learner motivation.

5.5.3 Case Study in Taiwan

Title of the paper: Culture studies and motivation in foreign and second language learning in Taiwan. Language Culture and Curriculum.

Author: Meng-Ching Ho,(1998) University of Durham,UK

Demotivation or motivation has always been at the centre of concerns in the English classroom in Taiwan's junior high schools. One of the reasons for students' low motivation in English learning is that it is a compulsory school subject. English is the only required foreign language (no other foreign languages are available in the curriculum) in both junior and senior high schools, and it is not used in people's daily life. However, success in mastering the language determines one's upward mobility and one's future, in terms of English as a test subject in all kinds of school entrance examinations in Taiwan and as the world language adopted in international business.

According to a study conducted by Hsu (1988), students in Taiwan learned English with an instrumental orientation, e.g. learning English in order to be admitted to a good school, to get a good job, or to prepare for studying abroad. Although quite a lot of students hoped that they could understand more about the peoples and customs of English speaking countries. Few of them wanted to become members of a foreign community. High school students good attitudes towards learning English, and there was significant correlation between their attitudes and achievement.

Another study which was held (1996, from February to May).The research has been held to investigate whether Culture Studies motivate a Taiwanese student to learn English or hinder their learning process. A total of 480 Grade 1 and 2 pupils from the region of Taipei City and

Taipei County answered a questionnaire assessing their desire to learn Culture Studies in English. The researchers used Gardner's questionnaire (1985). They measured :

- ❖ pupils' desire to learn Culture Studies
- ❖ pupils' orientations
- ❖ pupils' attitudes
- ❖ pupils' motivation



It should be mentioned that all students have the same curriculum, based on Grammar Translation Method.

The results support the view that Culture Studies may improve the motivation of Taiwanese pupils to learn English. The findings suggest that the students in Taiwan learn English for instrumental reasons, either to get a good job or to travel abroad. When the pupils' instrumental orientation to learn English is considered, the argument that Culture Studies may be a possible motivator seems less persuasive because it is integrative orientation which correlates more strongly with the pupils' interests in Culture Studies. Therefore, researchers in Taiwan remain optimistic Culture Studies has the potential to motivate pupils to learn English when the current sociocultural context of Taiwan is considered. Nowadays, Taiwan needs to head towards internationalism in terms of maintaining economic growth and to forge a new culture for state-building.

Therefore, it would be not totally true to claim that Culture Studies is the panacea for demotivated foreign language students. However, in the context of General Language Education where pupils lack specific purposes to learn the foreign language, Culture Studies is well worth trying.



A- Quick Test of Motivation

1. Studying English can be important to me because it will allow me to be more at ease with people who speak English							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
2. Studying English can be important to me only because I'll need it for my future career.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
3. Studying English can be important to me because it will allow me to meet and converse with more and varied people							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
4. Studying English can be important to me because it will make me a more knowledgeable person.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
5. Studying English can be important to me because it will enable me to better understand and appreciate English art and literature.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
6. Studying English can be important to me because I think it will someday be useful in getting a good job.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
7. Studying English can be important to me because I will be able to participate more freely in the activities of other cultural groups.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree
	1	2	3	4	5	6	7
8. Studying English can be important to me because other people will respect me more if I have a knowledge of a foreign language.							
	Strongly Disagree	Moderately Disagree	Slightly Disagree	Neutral	Slightly Agree	Moderately Agree	Strongly Agree



	1	2	3	4	5	6	7
<i>Source: integrative/instrumental section of test in appendix of Gardner, R. (1985) Social Psychology and Second Language Learning, Arnold, London, adapted for use in UK. Odd-numbered answers are integrative motivation, even-numbered instrumental.</i>							

5.6 CONCLUSION

In conclusion, it must be emphasized that motivation in a foreign language is a multifaceted rather than a uniform factor, and no available theory has yet managed to represent it in its total complexity. Before the 1990s, studies on motivation were based on a social psychological approach, attitudes towards the target language and towards the speaking group of the language were the most important factors. The 1990s brought along the welcome tendency of incorporating contemporary theoretical concepts from mainstream psychology into established L2- specific frameworks and models were put forward to describe L2 motivation. Sustaining motivation in a foreign language classroom is not an easy task; mainly that performance in exams is considered more important than other purposes. Creative and innovative teaching techniques are very needed. The teacher plays the greatest role in maintaining students motivated. A teacher should be aware, before going into his/her classroom that a positive comment, such as 'You'll go far' or a rewarding look lights up the learner's brain. A teacher is either a hope giver or a hope taker. is able to determine if his/her pupils walk away from his/her classroom with higher levels of hope and optimism than when they walk in. If a teacher does the same thing today that he/she did yesterday, he/she will end up with the same result tomorrow.

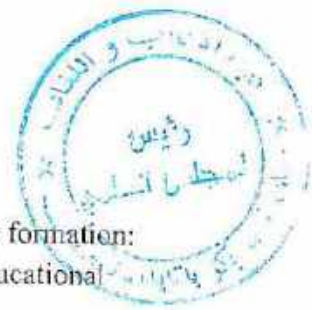


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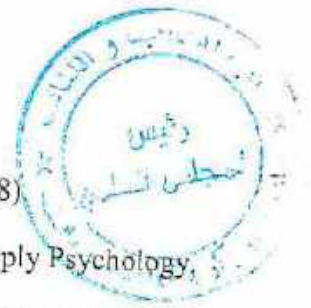
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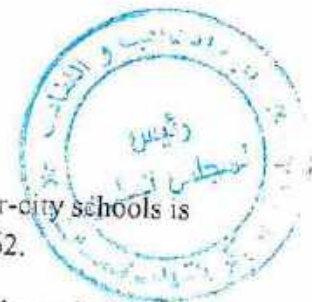
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