

## The Theory of Concurrent Thinking

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**Abstract:** This research presents the theory of the Concurrent Thinking. This theory adds to the patterns of thinking a new pattern known as the concurrent thinking which means thinking of multiple things at the same time, i.e., doing more than one mental process simultaneously and thus processing more than one task at a time. This all is done with high proficiency. This research is divided into four major parts as it discusses the concept of the concurrent thinking, then there is a review of the researches about the mind and nerves, then there is the discussion of the strategy of concurrency, and the final part is deriving conclusions.

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### 1. Introduction:

Physically speaking, the of human brain is unable to provide the required intelligence and creativity to produce a high level of mental operations (

Abdul-Ra'ouf, & Mohammad, 2008) Thus, teaching individuals how to think increase their ability to process information (Al-Balmfani, 2014). On that basis, the discovery of new patterns of thinking can help reach the best use of brain which positively affects the thinking process. The individual's realization of the capacities of the brain enables him to adjust these abilities and select the best methods and thus improve performance and the quantity of achievement.

### 2. Concurrent thinking:

The capacity of the brain is released through a new pattern of thinking that may be called concurrent thinking which means thinking of more than one thing at a time. Thus, concurrent thinking is a new pattern of thinking basically aims at enabling the individual to re-realize his self awareness and his capacities and capabilities. That is done through the best investment of the individual's capacities and capabilities. It investigates the ability to practice more than one conscious mental activity at the same time and to execute more than one conscious mental operation at the same time. This is opposite to the vertical thinking (which is based on successive chains and steps) and lateral thinking.

Concurrent thinking is a pattern of thinking. Sternberg (1994) believes that utilized thinking patterns are unfixed and thus differ based on the simulated models throughout the different stages of life. Individuals, in fact, differ in the degree of flexibility in moving from one thinking pattern to another and in the strength points in their identified preferences. In this way, Though individuals may have preferred patterns of thinking, these patterns

remain unfixed and open to change. According to KlobThe individual's thinking pattern lies in the method in which he perceives knowledge, information, experience, and in the method he arranges and organizes information and also in the method in which he records, codes and merges information and keep in his knowledge store and thus recalls in the method that reflects his method of expression either through sensory material means or semi-visual or symbolic way through character, word and number (Qatami, et al, 2007). The thinking pattern is known as the preferred method in the individual's use of his abilities where the individual is capable of varying the use of different thinking patterns based on the different tasks and conditions (Sternberg, 1994).

The strength of the concurrent thinking theory lays in the fact that it copes with the extreme speed of the knowledge revolution which is on the features of this century through investing the abilities of the brain and its huge capacity to uplift the the individual to be more capable of coping with the rapid developments and to face the requirements and challenges of this age. The students today are different from students in the past and thus the student's brain today is different from that of the student 10 years ago. Thus, Thinking of different and new patterns of thinking that may encapsulate the vast quantity of change has become an urgent necessity in the thinking area.

The theory of concurrent thinking does not involve unconscious operations such as heart beats of breathing, or other unconscious operations which the brain organizes. This theory, instead, focuses on the multiple conscious mental processes in the same time which are indeed on the conscious brain level such as listening to the news, surfing the net, writing a letter, and talking to a person at the same time and at a high proficiency. Another Example of the process of concurrent thinking is when an individual is thinking

in two different topics Simultaneously. It can be clearly seen through the outcomes or through the channels that embody them. The individual may be thinking verbally in a topic and thinking in a written form in the other topic. Thus, he is thinking in both topics concurrently but through different channels where thinking about the first topic is expressed in a heard voice while thinking about the second topic, which occurs at the same time, is expressed in writing on a piece of paper. In this way, multiple conscious thinking operations concurrently that the brain has millions of neurons and the thinking process is done through the cooperation of groups of cells where many other cells can be employed in other thinking processes especially with the ability to generate new neurons. This is done in addition to the processing of the unconscious sensory input and experience which requires a better and bigger employment of the capabilities of the brain.

### 3. The science of brain and nerves:

The theory of the concurrent thinking is based on researches in the field of brain and nerves. Leslie Hart is considered a pioneer in writing about the brain from an educational perspective (**Frank 2001**). Expectations in this field indicate that the science of the brain and nerves will accommodate all behavioral and cognitive sciences (**Rosenzweig, 1999**).

The brain is composed of neurons, which make the brain the organ of thinking and learning and they compose 10% of the brain cells. Other than these neurons are non nerve cells which are responsible for processing data and transferring electric and chemical signs among them (**Al- Al-Mesha'lah,2010**). The other type of cells in the brain are the glial and are higher in number than the others where they reach to up to 90% of the brain cells and their task is to connect between the cells specialized in thinking (neurons) and the parts of the brain. They also have other tasks such as feeding the neurons and growing them and providing proper environment. It is also found that neurons use the fibers of the glials as robs they catch while moving in the brain. The more increased the use of the brain in thinking the higher need for glials is there. The accumulation of Glials in one part of the brain indicates an intense use of that part in thinking operations. Also the more healthy the glials the better feeding they provide for the neurons, they better preserve them, and the connection processes among neurons is made easier and faster which indicates that thinking processes are going on well (**Al-Harthy, 2001**).

Neurons are responsible for making the brain the organ responsible for thinking. They are responsible for processing data and transferring them in the form of chemical or electric signs to the other cells and

connect them to the connections and receptors. Neurons are the base for the thinking process and learning to take place and the higher the chances for thinking and learning it reflects an increase in the number of connections among cells and forming new connections (**Hassan, 2008**). Also, the newer the stimulator which carries a challenge, the more active the brain cells become (**Jensen, 2000**).

The brain, in its complex compositions and unlimited capabilities, is highly flexible and it continually alters its being that was formed by the individual's experiences during childhood and throughout the following life stages (**Al-Salti, 2009**). This is due to the fact that what you

With its complicated structure and its infinite capabilities, the brain is very flexible. It changes continuously from its entity which is formed through the childhood phase and all the next phases (**Al-Salti, 2009**). What is learnt and done in life changes the shape of the brain materialistically and changes how its Neurons communicate. The different areas of the brain grow in different rates among humans (**Medina,2008**). It's been found that there are changes in the Nerves within 48 hours after being exposed to simultaneousness (**Al-Salti,2004**). The experiences contribute to the development of the connectivity and the Nerves nets (**Qatami, & Al-esha'lah, 2007**). The most important characteristic in the brain is its ability to work on several levels in several ways at the same time. The thoughts and emotions and imagination and the function of the body members work in one time in an interactive shape as a whole system (**Caine& Caine, 2002**). The brain, like any other human body members, gets more active when working and gets broke at the time of laziness (**Jensen, 2008**).

Thus, learning and making connections about a specific topic comes as a result to being exposed to a new experience whereas a group of Neurons gets specialized in learning the new things and the connectivities among them increases; as the experience increases, new connectivities form among these Neurons and the other Neurons from the sides that strengthens the experience the repetition because as the Neurons practices communicating with each other increases the speed of achieving the connectivity (**Jensen, 2005**).

Although humans lose brain cells every day, new cells are replaced in a fertile and sumiltonous-rich environment (**Jensen,2000**). The Neuroscientists were able to uncover that the Neurons could be regenerated in the brain due to the environmental enrichment, especially in the part that is responsible for forming the memory in the brain (**Diamond1999**). Thus, humans can develop their connectivities and nerve links at all ages, which means that they can increase their intelligence without limits, and therefore the

brain amends its structure based on the type and quantity of the utility. While Autopsying, Neuroscientists found that the university graduates have an increase in the nerve connectivity at the rate of 40% when compared with those who dropped out of high schools (**Jensen,2000**).

**Andrews (1997)** made a study about what the researches feel the educators. The study aimed at putting a theoretical frame in the field of interest to learning, which is brain-based learning, adopting those who are responsible for setting the curricula in addition to the contributions that brain researches offer; adding to it the use of the analytic-descriptive curriculum researcher in applying his study. The results were that, the brain works as a complete system without separating between the two spheric group; it can open venues to multiple memory in the brain if scientific curriculum, which contains large-scale of knowledge, is provided. In addition, the curriculum should change continuously because the brain changes with the utilized experience.

As we mentioned, the brain cells are composed of two major types of cells: they are the learning and thinking cells, called Neurons; and the gummy cells which are specialized in providing nutrition to the cells of thinking. Learning occur when the Neurons be grappled with each other in different areas of the brain causing electro-chemical charges inside the cell to exchange the information.

Thus, scientists specialized in brain study define learning as a process of creating connectivities among a group of Neurons (**Alharithi,2001**). The brain researches indicate that the brain distinguishes between both cases of early learning, when working or thinking of something that is known previously, and the second case when working on or thinking of something new.

When something that is learned already is further practices, the paths of the brain interact easily because the path of the nerve connectivity is known and prepared since the brain has already prepared these paths through the pituitary process; precipitating Milyne substance on the transmitting cores. So, the brain paths transmit the messages of achieving the previously known work easily. On the other side, the unknown work requires bigger effort and consumes more energy to form the new connectios (**Freeman, 1995**).

The Neurons transmit information to the other cells in the form of chemical or electrical waves via connectivities among the cells. This is the base of every human behavior. Every single thought made and every single word said is based on this electrical or chemical connectivity among the Neurons. The more communication rate made among the Neurons, the larger increase happens in the individual's capability

in learning (**Jensen,2003**). The brain is a parallel process and the brain is a vital device. The body and the brain and the mind are a dynamic unit. Every brain or every mind recognizes and creates the parts and the whole thing in a synchronized way (**Caine, Caine,2002**)

#### **4. The strategy of synchronization:**

academic educators see that there is a huge gap between some theories and their practices. The theories lose so much when applied. As a result, the gap among the theories and the educational practices should be bridged through complete clarity and through knowing how to interpret the psychological and educational theories into educational practices (**Abu Jado, 2006**).

The synchronized thinking offers one of the potential solutions for this problem. It's through providing educators and academics with a strategic benefit in training and teaching and helps in interpreting and transforming thoughts into practical practices on the ground by presenting a group of practical applications

Synchronized thinking theory is a high capability of application through its theoretical frame, which provides the trainer/teacher/educator with general and detailed orientations, in order to invest and function his/her energy and capabilities in a larger and bigger way. This could be trained on throughout the synchronization strategy, which is a logic method towards a creative and diverse outcome that has its own tools and techniques in implementing the multiple brain tasks at the same time with a high efficiency; this require training. **Al-Salitti, 2004** indicates that the human brain is programmed to be creative. Examining the styles for finding solutions is the brain speciality but it requires practice and training. We note that only few individuals have this feature, which could be gained by training and practicing.

This theory is not only applies on the gifted and outstanding individuals but it also includes the normal individuals with taking the time differences that is taken when training and practicing to get to the mastering phase. Being practiced by talented ones is much easier and less training than normal individuals, who may need longer time to practice and train in addition to the individual differences among each one.

#### **5. Conclusions:**

This theory is not contracted with the sequent vertical thinking not with the sinde thinking or other styles of thinking. It is a new addition to the styles of thiking that goes along with the developments of time and fast changes. Many individuals, in terms of knowledge and technological progress, they have higher skills and better capabilities that matches the

time of the theory. Thus, the best means of investing these capabilities and energies are located within the synchronized thinking style which meets the needs of talented, creative and even the normal individuals.

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