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Revista de Antropología, Ciencias de la Comunicación y de la Información, Filosofía,  
Linguística y Semiótica, Problemas del Desarrollo, la Ciencia y la Tecnología

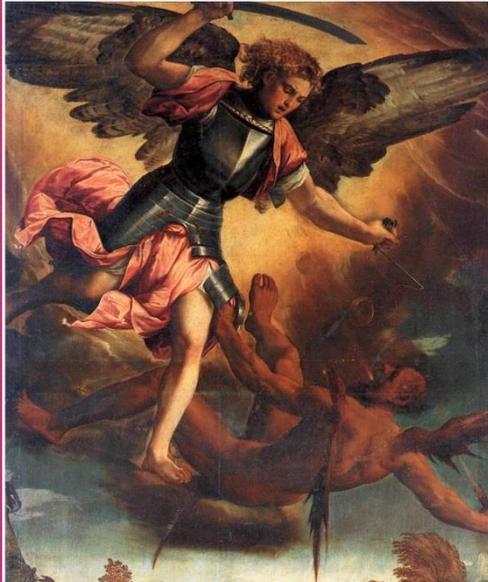
Año 35, 2019, Especial N°

# 20

Revista de Ciencias Humanas y Sociales

ISSN 1012-1537/ ISSNe: 2477-9385

Depósito Legal pp 198402ZU45



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## **Active Learning And Creative Thinking**

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### **Abstract**

**The research aims to know: on active learning and its importance in the educational process and creative thinking and its importance in the educational process. Active learning represents an educational philosophy that depends on the learner's positive on the educational learning situation, and includes all educational practices and teaching procedures that aim to activate and maximize the learner's role, Where learning takes place through work, research and experimentation, and the learner is self-reliant in obtaining information and acquiring skills. And the formation of values and trends, it does not focus on memorization and indoctrination, but rather on the development of thinking and the ability to solve problems and on teamwork and cooperative learning, and therefore the focus of active learning is not on the acquisition of information, but on the road and method by which the student acquires information and values, is a comprehensive term For a group of teaching methods that focus on placing the responsibility of learning on the learner, in principle the idea of active learning depends on the active participation of the learner in learning materials that makes him able to retrieve information better, and the concept of active learning has spread in the eighties of the twentieth century N but it has become commonplace in the nineties due to report both (Bonwell & Eison) to the American Association in 1991, which offer different methods to encourage the application of active learning.**

## **Aprendizaje Activo Y Pensamiento Creativo.**

### **Resumen:**

El objetivo de la investigación es saber: sobre el aprendizaje activo y su importancia en el proceso educativo y el pensamiento creativo y su importancia en el proceso educativo. El aprendizaje activo representa una filosofía educativa que depende de lo positivo del alumno en la situación de aprendizaje educativo e incluye todas las prácticas educativas y los procedimientos de enseñanza que tienen como objetivo activar y maximizar el papel del alumno, donde el aprendizaje se lleva a cabo a través del trabajo, la investigación y la experimentación, y el alumno es autosuficiente para obtener información y adquirir habilidades. Y la formación de valores y tendencias, no se centra en la memorización y el adoctrinamiento, sino en el desarrollo del pensamiento y la capacidad de resolver problemas y en el trabajo en equipo y el aprendizaje cooperativo, y por lo tanto, el enfoque del aprendizaje activo no está en la adquisición de información, pero sobre el camino y el método por el cual el estudiante adquiere información y valores, es un término integral Para un grupo de métodos de enseñanza que se enfocan en colocar la responsabilidad del aprendizaje en el alumno, en principio la idea del aprendizaje activo depende del activo participación del alumno en los materiales de aprendizaje que le permiten recuperar mejor la información, y el concepto de aprendizaje activo se ha extendido en los años ochenta del siglo XX N, pero se ha convertido en un lugar común en los años noventa debido a informar a ambos (Bonwell y Eison) La Asociación Americana en 1991, que ofrece diferentes métodos para fomentar la aplicación del aprendizaje activo.

Educators and those interested in education and the educational and learning process have presented many definitions of the concept of active learning, Haider, 2000 AD, defined it as “a method of teaching that involves learners in doing things that compel them to think about what they are learning.” As for Saada and others, 2006 AD: indicates that active learning is a method of learning And education at the same time, in which students participate in various activities that allow them to think carefully and analyze properly and gives them the opportunity to share their views with others and the presence of a facilitator.

As for creativity in a language, it is derived from knowledge. Cre-

ate something. It means extracting it and creating it. We say that so and so in this matter, meaning that it was the first to do it. Creativity means finding, creating, creating or creating.

Torrance and Myers were known to be creative as “the process of recognizing gaps in information and identifying missing elements that lead to their non-production, then searching for indicators and clues in the situation facing the individual and the information that he has and formulating hypotheses to pay the gaps, testing hypotheses, and re-testing and adjusting them a profit several times and finally The results are based on “interest in creativity began from an early time. Evidence is abundant in the interest of the Babylonians, Assyrians, Egyptians, Greeks, Greeks, and others, as he was deliberately concerned with their psychological capabilities and preparing them to be philosophers, practitioners, or practitioners of demand or spiritual mediators and these ones. Philosophers have tried to explain creativity on the basis of its nature, that is, it is nature that generates creativity, that is, an interpretation of everything based on what we have created and what cannot be explained and replaced.

The first topic included “the concept of active learning; elements of active learning; the most prominent benefits of active learning; the foundations and principles of active learning; the advantages and constraints of active learning.” The second topic included creativity; the importance of thinking; the development of the concept of creativity; characteristics of creators; creative thinking skills; stages Creativity: Thinking Levels

The first topic

The concept of active learning:

It is a comprehensive term for a group of teaching methods that focus on placing the responsibility of learning on the learner. In principle, the idea of active learning depends on the active participation of the learner in learning materials that makes him able to retrieve information better, and the concept of active learning spread in the eighties of the twentieth century, but it It became popular in the nineties because of the report (Bonwell & Eison) to the American Society in 1991, in which they presented various methods to encourage the application of active learning.

Educators and those interested in education and the educational and learning process have provided many definitions of the concept of active learning, as Haider, 2000 AD defined it as “a method of teaching that engages learners in doing things that compel them to think about what they are learning.” As for Saada and others, 2006 AD: indicates that active learning is a method of learning And education at the same time, and students participate in various activities that allow them to consciously think and sound analysis as well as give them the opportunity to share their views with others and with the presence of a facilitator. As for resourcefulness, 1998 AD: He said that “learning is meaningful and useful, of value and is capable of survival and continuity and use in Life of the dead Current and future science, which is productive and creative learning that is deep and leads to investing all the potential and potential of the individual in a creative and creative investment that contributes to improving the quality of life of the individual and society at the same time .. “ Al-Hashemi and Al-Dulaimi knew, 2009 AD: active learning that he is able to act in an intended and planned manner according to certain foundations, and by using education strategies that are appropriate to the educational situation, and according to the goals set and require that the teacher perform sufficient patterns of behavior that work on a class interaction between him and the learners.

The researchers define it as any activity the learner does in the classroom other than passive listening to what the teacher says inside the lecture, so that it includes instead of positive listening that helps them understand what they are hearing, and writing the most important ideas presented in what he offers from words, opinions or explanations, comment or comment on her .

Active Learning Elements:

(Myers & Jones, 1993) mentioned that active learning has three components:

The first: What they call the basic elements, which consist of listening, speaking, reading, writing and meditation.

The second: It is learning strategies and is closely related to the element first, and this is through the use of groups, discussion, problem solving, and simulation.

Third: The educational resources that the teacher uses to encourage students and stimulate their motivation to participate and interact with class activities (Al-Hashemi and others, 2016, p. 26).

The need for active learning:

The need for active learning emerged as a result of several factors, most notably instances of confusion and confusion that learners complain of after each educational situation, which can be interpreted as the result of the unification of new information in a real way in their minds after each traditional educational activity, in traditional methods the learner's activities are described as follows:

- 1- It requires the learner to memorize a large part of what he learns.
- 2- It is difficult for the learner to remember things unless they are mentioned according to the order they are presented in the book.
- 3- The learner prefers subjects that contain many facts about topics that require deep thinking.
- 4- The learner mixes conclusions, arguments, and examples with definitions.
- 5- The learner often thinks that what he is learning is related to life.
- 6- It is difficult for the learner to remember things unless they are mentioned according to what they appear in the book.

But in active learning, the new information is truly incorporated into the learner's mind, thereby earning self-confidence. The activities of the learner in active learning are described as follows:

- 1- The learner is often keen on understanding the overall meaning of the topic and is not lost in the particles.
- 2- The learner allocates enough time to think about the importance of what he is learning.
- 3- The learner tries to link new ideas with life situations that can be applied to them.
- 4- The learner connects every new subject he teaches with previous related topics.
- 5- The learner tries to link the ideas in one subject with the other corresponding ideas in the other subject.

(Eison, 2010) added the following differences between traditional and active learning in universities and higher education institutions.

Traditional education:

- 1- The teacher talks and students listen only with some simple interventions.
- 2- Students concentration starts to decline after passing (10 - 15) minutes from the beginning of the session.
- 3- Teacher's questions require a direct answer.
- 4- Student responses to teacher questions are done by raising a hand.
- 5- The student's conversation with his student colleague during class activities is not desirable.
- 6- The student listens and records his notes independently.
- 7- Students' absorption during the lesson cannot directly and clearly measure it.
- 8- Student absenteeism is often high

Active learning :

- 1- The teacher talks and then stops for a while during class activities.
- 2- When students' focus begins to diminish, short class activities are given.
- 3- Teacher's questions require responses, not one.
- 4- Students are encouraged to speak and discuss during the classroom situation.
- 5- The student often works with a colleague or in groups.
- 6- Students' absorption during the lesson is evaluated directly.
- 7- Opportunities are given to continuously correct misunderstanding during class.
- 8- The attendance of students is often recorded at high rates.

The most prominent benefits of active learning:

- 1 - Previous learners' knowledge of active learning forms the basis of learning new knowledge, as the enrichment of knowledge is a necessary condition for learning.
- 2- Through active learning, learners come up with meaningful solutions to problems because they link past knowledge or solutions to ideas and procedures familiar to them and not to use solutions of other people.
- 3- During active learning, learners receive sufficient reinforcements about their understanding of new knowledge.
- 4- The need - in active learning - to reach a specific outcome or express an idea that compels learners to retrieve information from

memory, perhaps from more than one topic, and then link them together.

5- Active learning shows learners their ability to learn without the help of an authority, which enhances their self-confidence and makes them more active during learning.

6- The task the learner accomplishes himself - during active learning - or participates in it with others that is more valuable than the task accomplished by another person.

7- Active learning helps to change the image of the teacher as the only source of knowledge (Hashemi et al., 2016, p. 28).

The foundations and principles of active learning:

Active learning is a system based on a set of foundations and basic principles that define the features of this system, and the most prominent of these foundations:

1- Students' participation in choosing the work system and its rules.

2- Requiring students to define educational goals.

3- Diversity of learning resources.

4- Using student-centered teaching strategies that are appropriate to his abilities, interests, learning styles and intelligence he enjoys.

5- Depending on the students' evaluation of themselves and their colleagues.

6- Providing communication in all directions between the teacher and the learner.

7- Allow students to self-manage.

8- Spreading an atmosphere of reassurance, fun and enjoyment while learning.

9 - Each student learns according to his own pace.

10- Helping the student to understand and discover his strengths and weaknesses.

11- Learning is better when it is related to the student's life, reality, needs and interests.

12- Learning occurs through the student's interaction and communication with his peers, his family, and members of his community.

13- Learning is better when it takes into account the student's abilities, speed of comprehension, rhythm and style of learning.

14- Learning occurs better when the student is the center of the ed-

ucational process.

15- Active learning encourages interaction between the teacher and the learner. They found the interaction between the teacher and the learner, whether inside or outside the classroom, is an important factor in the participation of learners and motivating them to learn, and even makes them atone for their future values and plans.

17- Encouraging cooperation among learners. It was found that learning is reinforced earlier when it is in a group form. Teaching as good as work requires sharing and cooperation, not competition and isolation.

19- It provides a quick feedback, that learners desperately need to reflect on what they have learned and what they should learn and to evaluate what they have learned and determine what they do not know and this in turn leads to intense focus in the subject of learning (Badeer, 2008, p. 31).

Advantages of active learning:

The active learning method has many advantages, and the most important advantages of the active learning method:

1- It leads to the effect of learning, which helps to remember it.

2- It makes learning meaningful.

3- It further enhances the learner's attention.

4- It increases the integration of students in work, as a result of feeling a sense of enjoyment and the direction from this learning.

5- Students are motivated by the large number and diversity of production.

6- It develops social relations between students and each other, and between them and the teacher.

7- It develops self-confidence and the ability to express opinion.

8- It enhances the ability to think and research.

9- It enhances the spirit of responsibility and initiative among individuals.

10- It enhances positive competition among students. (Al-Hashemi et al., 2016, p. 32).

Active learning barriers:

1- The teacher cannot give the required content within the specified time period.

- 2- The use of active learning strategies takes a lot of time to prepare before class.
- 3- Classrooms with large numbers may prevent the use of active learning strategies.
- 4- Most teachers think they are good lecturers.
- 5- Students resist any teaching method other than lecture style.
- 6- A shortage of materials and equipment for active learning.
- 7- Fear of the learners not participating and not using the higher thinking skills.
- 8- Fear of losing control over learners.
- 9 - Weak teacher skills in discussion management skills (Awad and Zamil, 2009, p. 33).

The second topic

Active learning and creative thinking

Creativity is a language that is derived in science. Create something means extract it and create it, and we say that so and so in this matter, that is, it was the first person to do it. Creativity means creation, creation, creation or innovation.

(Torranc myers, 1970,25) defined creativity as “the process of recognizing gaps in information and identifying missing elements that lead to non-production, then searching for indicators and evidence in the situation facing the individual and the information that he has and formulating hypotheses to fill the gaps, testing hypotheses, and re-testing and adjusting them.” Profit multiple times and finally based the results. “

Interest in creativity began from an early time. Evidence is abundant in the interest of the Babylonians, Assyrians, Egyptians, Greeks, Greeks and others, as he was keen on caring for their psychological abilities and preparing them to be philosophers, practitioners, practitioners of demand or spiritual intermediaries; and these philosophers tried to explain creativity on the basis of its nature, that is, nature is Which generates creativity, i.e., the interpretation of everything based on what we created and what cannot be interpreted and replaced (Al-Surur, 2002, p. 45).

The importance of thinking:

Thinking skills are the tools that he uses in each of his steps and they are many and varied, and they can be learned and mastered using them like any other skill such as writing, swimming, or driving a car.

Thinking skills occupied many educators and scientists, and many of them tried to describe and classify them in a different way, and they tried by explaining the differences between the ability of students to learn according to what he mastered of these skills, and mastering their use means sufficient to walk, i.e. taking the right step at the right time and in the appropriate way and thus Reaching the request in the shortest time and effort possible and the brain learning center, which consists of millions of neurons, which branch in each of the many branches, which in turn branch out to tiny hairs when the child grows and is exposed to various stimuli in the surrounding environment. This branch begins to come close to each other and intertwining, and if it happened and the child was exposed to the same stimulus again, then these networks prove and start the memory with pollution, and thus the adult person when he passes with many experiences and experiences, and these networks represent the relationships between neurons and these relationships increase in consistency with the exercise (Hashemi and others, 2016, p. 77). The researchers believe that thinking skills are the tools that help to stabilize these networks, as the skills are the relationships between different variables in the surrounding environment, and their practice means more linkage between cells and fixation of existing networks, the more the number of existing networks of thinking increases, which means a speed in Make decision .

The development of the concept of creativity:

After studies have evolved in the field of creativity, especially when creativity in its various fields, scientific, literary and artistic, has become a trump card that every nation in our time is seeking to obtain.

It has to possess and achieve excellence and distinction among other nations in our present day in an era of excellence in speed and excellence in all magazines, including the field of scientific and technological discoveries, and that made creativity a central subject of psy-

chological and social studies and creativity became a necessity for all institutions operating in society to push towards competition and obtain a site Distinguished over this planet and there is nothing in it except for those societies that do not stop working and persevere on excellence and occupy advanced centers in wild development in earlier periods of the history of human societies, which are not far away and the focus was on providing a need The human being has the necessity and bringing the human being to a certain level of living. Characteristics of the creators: The creators have the following characteristics:

- 1- Continuing education and follow-up.
- 2- The ability to extract solutions and make judgments.
- 3- Having a broad knowledge experience.
- 4- He has a high degree of curiosity.
- 5- Loves to change and tends to move.
- 6- It affects others.
- 7- The challenge.
- 8- Mental openness, respect for new ideas and others' ideas, finesse friendliness, resourcefulness, speed of intuition.
- 9- Practicing higher operations in thinking (analysis, synthesis, and evaluation).
- 10 - Take care of himself, and trust in his capabilities.
- 11- Resistant to frustration because it is governed by internal motives.
- 12- The ability to work individually or within small groups or large groups.
- 13 - Organizing skill and time management and use of the organization in a fruitful manner.
- 14- The ability of an individual to manage the required jobs.
- 15- Leadership features.
- 16- The ability to initiate and initiate.
- 17- Vitality and Activity.
- 18- Desirable positive (polite) behavior. (Katame, 1996, p. 67).

Creative thinking skills among students: Sociologists believe that the creator is the one who connects and combines old things. As for educational scholars, it is considered an acquired characteristic that

contributes to its growth in new education, the encouraging house and the university that applies effective activities and modern teaching methods.

Often a creative child has many skills, including:

1- Relationship: It is the ability to generate a large number of alternatives, synonyms, ideas or problems when responding to a particular stimulus and speed in generating it, which is a process of remembering and recalling an optional information or concepts.

2- Authenticity: means the unfamiliar production glyphon.

3- Flexibility: the ability to help students change their mental positions and think from one situation to another.

4- Expansion.

5- Acceptance.

6- Continuity.

7- Solving problems. (Katame, 1996, p. 55)

Training in creative thinking: The development of creative thinking requires the following:

1- Understanding the topic of creativity: This is done by training individuals on topics in creativity such as the process of creative thinking, creativity tests and creativity theories.

2- Developing the traits of the creative personality: This happens by rewarding the positive traits of students, such as: independence, progress, enthusiasm, curiosity.

3- Development of creative abilities: This is implemented through training individuals on creative thinking abilities or creativity skills and thinking education programs.

4- Learning to solve problems: This is done through training students in steps to solve problems

5- Motivating students and motivating them to participate in creative activities that need new ideas and creative solutions to the problems presented.

6- Acquiring awareness and creative trends: This includes knowing the importance of creativity and participation in creative activities. (Al-Surur, 2002, p. 44).

Stages of the creativity process

Scientists differed in determining the stages of the creativity process.

(Stein) determined creativity in three stages, which is the formation of hypotheses, then testing them, then generalizing the results. It is not necessarily necessary to pass that it is a creative process with these three stages, but creativity may appear in one of them or in all stages, so Stein proposed three The stages of the creative process are:

1. The stage of hypothesis formation
  2. The hypothesis testing stage
  3. The stage of communicating to the results and generalizing them
- As for (Wallas and Marksberry) it indicates that the process of creativity goes through the following stages:

1. Preparation stage: This stage includes collecting information related to the problem in collecting its various aspects by making use of experience and different decisions, and then links this information in a manner that enables it to determine, and their status, elements of the problem; the individual may try to solve this problem at this stage , And these attempts may be useful in introducing more in depth into the problem molecules and elements and their relationship with each other.

2. The incubation stage: The creative person is idle at this stage, does not show any intellectual activity mentioned, in which the mind is freed from many thoughts that have nothing to do with the problem. This problem is in the mind and imagination of man, and at this stage the creative person is concerned

3. The stage of radiance or inspiration: new ideas are born in this stage that leads to solving the problem. Often, new ideas come to the mind of the creator and as if there is another person who provides them with ideas, Hoydley (1993) states that at this stage the creator finds his lost which was In discount looking for it.

4. The evaluation or investigation stage: It is the stage of experimenting and testing the new creative idea, preferably before the creative person announces his idea to try it and verify it, in order to make sure that he will not encounter any objection to it, and the person must not make a final judgment on the completeness of the creative idea he reached. Rather, he should expect criticism from others, and he must not rule out that someone else will come at some

time and in another place to build the feelings and palaces of his new creative idea now.

The most important teaching methods for developing creativity:

Studies and research conducted by educators recommend using the following methods to develop creative thinking

1- The use of open-ended activities: that is, the positives or results are not known to the student, therefore the student must strive and make assumptions and design experiments until he reaches the result and makes sure that it is correct.

2- Using the method of commenting or discovery: This is because it emphasizes independent self-education, and emphasizes the processes of science and the skills of scientific thinking, and that the creative pupil behaves in the behavior of the world in his work in terms of identifying the problem and collecting information and then imposing assumptions until reaching the results and verifying the validity of those Results.

3- Scientific Games: They stimulate mental abilities in an interesting and interesting way, and they can be used as an educational method, and encourage students to make games like.

4- Using divergent questions: Divergent questions make the student think in different directions and create an appropriate atmosphere for him to open the classroom and use creative abilities.

Example of this - what happens if the sun does not rise again?

What happens if gravity is zero?

It also includes in these questions with multiple positives such as:

What would you do if you land on Mars?

What would you do if you were defense minister?

5- Mystery puzzles: The teacher may present two similar pictures after some things change in one of them and then ask the pupils to determine the difference, or display two pictures of different birds, and students are asked to identify similarity points ... etc.

6- Brain cyclone sessions: in which students are divided into groups, each group includes between 5-10 students, then the question is presented to them, then the students present ideas and answers without being restricted or criticized by anyone, because criticizing ideas when presented may frustrate and prevent the individual From gen-

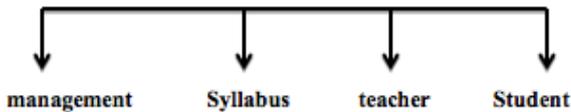
erating other ideas, brain rain sessions depend on two principles:

- 1- Delaying criticism until after completing the generation of ideas.
- 2 - Take advantage of how many ideas raise and increase how they are, meaning that a large number of ideas leads to the generation of ideas characterized by originality and novelty (Hashemi and others, 2016, p. 83)

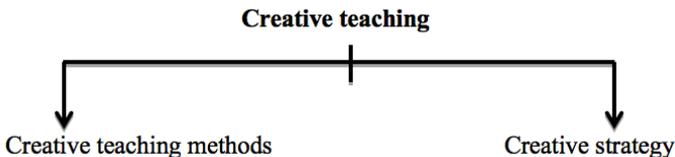
Creative teaching:

Teaching creativity is a set of experiences previously planned by the teacher who implements it in the classroom with students in order to achieve goals previously drawn and that teaching is based on the foundations, laws and theories as it is placed in the following form:

**The elements of the teaching process**



Moreover, there are teaching strategies, which can be defined as a set of principles, rules, methods, methods, values, and integrated trends followed by the teacher in guiding and organizing students and interacting in order to reach specific goals, so creative teaching depends on the creative strategies and method of teaching as in the following form:



Creative strategy:

This strategy includes a method of teaching with a method or a set of methods with a teaching method used by the teacher for the events of the learning process in order for active learning to occur from students, and this strategy is the process of communicating the

components of the curriculum and teaches students for a period to reach two goals, namely (the scorer of the subject and educational goals) and emphasizes education scientists And psychology, strategy works according to five main components

Elements of the creative teaching strategy:

- 1- Pre-teaching activities: it includes (defensive, goals, tribal information)
- 2- Providing information: that is, providing the information from the teacher to students, including (concepts, principles, facts)
- 3- The contribution of the learners: that is, the students participating with the teachers
- 4- Test and evaluation: that is, performing a set of achievement tests and issuing a judgment on those tests.
- 5- Follow up.

The researchers believe that the teaching method is a purposeful organized mental process that leads to the achievement of the set goals and works according to it (the teacher and the student) to implement them and in order to reach the achievement of educational goals, so a successful teacher should not rely on one method of teaching but rather depends on many methods to move students' activity and interaction because Relying on one way of boredom.

Thinking levels:

The process of education does not stop at a time or place, but rather continues with the individual, is easy to adapt to the new developments, and to adapt to the new developments and the ongoing knowledge explosion requires learning new skills.

Therefore, when an individual asks for his name, he answers quickly without hesitation, but when he asks about his conception of life on the surface of the earth, if its turn period becomes (40) hours, he will find himself in front of a more difficult question and calls for him to undertake a more complex mental activity, so scientists have divided thinking into two levels, namely Basic and complex thinking. The basic thinking skill requires keeping and retrieving information, assimilation, interpretation, application, clearance, comparison, classification, and observation. The individual must master these basic skills first before moving to the level of complex thinking.

As for the level of complex thinking, it has characteristics including: Creative thinking: originality, flexibility, relationship and imagination.

Critical Thinking: Deduction and Induction.

Decision-making: that is, setting the goal, imposing assumptions, testing the best solutions.

Problem solving: analysis, synthesis, and evaluation.

Supercognitive thinking: planning and evaluation.

Thinking is a series of mental activities that the brain performs when it is exposed to a stimulus that is received by one or more of the five senses.

De Bono has offered it as an exploration of experience in order to reach a goal. This goal may be understanding, making decisions, or solving a problem.

Thinking Strategies: There are two strategies for teaching thinking: 1- Education strategy through the academic content and it has several stages, namely:

Skill Show in Brief: Skill Title, Objective, Definition.

Explanation of skill: The teacher explains the rules or steps that must be followed when applying the skill.

Review application steps:

- Students apply the skill to a task similar to the example presented by the teacher, and the teacher leaves the steps in front of them to benefit from them and follows the students' actions and helps those who need.

2- The strategy of teaching thinking skills through its own academic content and then developing the (cort) program prepared by (DeBono). The program consists of

60 studies divided into six parts. Each lesson contains a set of principles, some exercises and examples, as well as some operations. The teaching strategy is completed as follows:

The teacher explains the way of thinking that students will be trained to use using the example.

- The teacher chooses a training exercise.

Students apply the skill for a period of 5 minutes.

- The teacher displays their findings and they get feedback from the

teacher.

- The teacher re-trains students on the same way of thinking in the same way, but with another exercise (refinement of skill).
- The teacher gives enough time to discuss the lesson process.
- The teacher uses the principles and foundations given in the student card to conduct a discussion on the topic of the lesson.
- Students are assigned a homework assignment and benefit from the project paragraphs mentioned in the card (Olive, 2003, p. 88).

The most important results of the research:

The researchers see the need for active learning emerged as a result of several factors, the most prominent of which are the confusion and confusion that learners complain after each educational situation, which can be interpreted as the result of the unification of new information in a real way in their minds after each traditional educational activity, but in active learning the information merges. The new is a real incorporation into the learner's mind, which gains it self-confidence. The activities of the learner in active learning are described as follows:

- 1- The learner is often keen on understanding the overall meaning of the topic and does not get distracted in the particles.
- 2- The learner allocates enough time to think about the importance of what he is learning.
- 3- The learner tries to link new ideas with life situations that can be applied to them.
- 4- The learner connects every new subject he teaches with previous related topics.
- 5- The learner tries to link the ideas in one subject with the other corresponding ideas in the other subject.

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Revista de Ciencias Humanas y Sociales

Año 35, N° 20, (2019)

Esta revista fue editada en formato digital por el personal de la Oficina de Publicaciones Científicas de la Facultad Experimental de Ciencias, Universidad del Zulia.

Maracaibo - Venezuela

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