The effect of the successful intelligence strategy on the metacognitive skills of the third grade students at the Faculty of Education in the subject of teaching methods

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Abstract:

The importance of the current research was that it came as a result of what the mechanism of studies calls at the present time, which is the development of the human mind in all its aspects, which comes through the path of successful intelligence education, which includes encouraging students to use their mental abilities and different thinking skills, in order to learn better, and to be given the opportunity to organize ideas and meanings It clarifies the relationships between the concepts included in a subject from the educational subject and helps students to organize their knowledge in order to deepen their understanding, and the current research aims to know the effect of the successful intelligence strategy on the achievement of the third grade students of the College of Education in the curriculum and framework Documents teaching. To achieve this, the researcher used experimental design with partial control consisting of two groups, one is experimental and the other is control, and the researcher intentionally chose Al-Muthanna University, College of Education, Department of History as a place to conduct the experiment, and the number of the sample (experimental and controlling) sample was (82) male and female students (42) male and female students (40) Male and female students. In a random manner, Division (b) was chosen as an experimental group that studies the strategy of successful intelligence, and the control group is taught in the usual way. Likewise, the scientific material was defined, behavioral goals were formulated and teaching plans were prepared. In line with the research goal, the researcher prepared a test of achievement of a multiple choice type, and the validity and reliability of the test as well as the statistical analysis of its paragraphs were confirmed. The results showed that using the T-test surpassed the experimental group that was studied according to the successful intelligence strategy over the control group that was studied in the usual way and in light of the research results, the researcher recommended the need to use the successful intelligence strategy as the researcher presented a set of recommendations and proposals, most notably conducting similar studies for the study Other current study levels. Also, to know the effect of using the successful intelligence strategy on other variables, such as critical thinking, innovative thinking, visual thinking, and visual perception.

Key words: *Successful intelligence, metrics of metacognition skills, curricula and teaching methods.*

The problem of the study:

Successful intelligence, a measure of metacognition skills, curricula and successful intelligence is one of the main cognitive processes that can outperform information and knowledge in facilitating the process of adaptation and control of individual resources and resources within the context of the learner in different life situations, whether these resources are in the form of information or experiences or Tools are available in the life and daily situation of the learner, and the need for successful intelligence is clearly evident in our time; the result of the rapid development of information and the vast amount of knowledge that the human mind is unable to carry (Sternberg, 1998a: 71).

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Therefore, many educators and specialists in education and psychology called for overcoming the difficulties arising from this scientific development in all situations, whether academic or life, so that the primary goal is how to manage information and benefit from it and harness it through effective and careful thinking in order to raise the learner's efficiency in the face The problems of the present and the future, enabling it to challenge mystery and surprises, and increase its ability to adapt the environment and the environment in which it lives (Rogalla, M, 2003: 201).

Therefore, the learner should be raised the value and benefit from his information in order to apply to him that he is successful and intelligent, which leads to achieving effective and continuous learning, and pushes him to deal with the situations according to the rightness, and supports individuals in life situations as they can adapt the life situation in a way that is compatible with solving the problem, as well It constitutes a basis for directing effective, effective, and efficient performance (Chan, 2007: 183).

The researchers go to what Sternberg & Grigorenko (2004) reported that students who have successful intelligence learn most effectively, because successful intelligence provides them with educational images that are compatible with their mental abilities, enhancing their strengths and improving weaknesses, as well as the latest balance between learning and memory, Analytical thinking, creative thinking, and practical thinking (Sternberg & Grigorenko, 2004: 3).

Whereas the use of such kinds of thinking, reasoning, memory and recall, after learning, is an active process in which the learner searches for knowledge and seeks it, and as students age, they develop effective strategies to monitor their cognitive processes, and if students develop these strategies, they will have a level of awareness that enables them to reach The goal is by observing and controlling their thinking, and this is called "metacognition" (Baqi'i, 2004: 1).

Therefore, individuals need to use these skills collectively to be successful individuals in life, and because many teaching methods develop the intelligence of individuals in only one field which is analytical intelligence, and give less importance and attention to the fields of creative and practical intelligence necessary for success in life, so use the capabilities of analytical, creative and practical thinking on It leads to successful intelligence, so discrimination in one of these abilities may not be sufficient for success (Sternberg & Grigorenko, 2002: 265).

Therefore, the literature and research in education and psychology indicated that most students possess one field of successful intelligence that is limited to the analytical intelligence that can be obtained from books and general perception in the sense that most of the students did not reach practical and creative intelligence only rarely, so the problem is determined by the students' possession of intelligence The analytical that helps them judge the quality of ideas, but they lack the ability to generate those ideas, which is represented by creative intelligence, and the employment of those ideas in a productive work, and work to persuade others of its value, and represented by practical intelligence. Therefore, the researchers identified the research problem with the following question: - What is the effect of the successful intelligence strategy on the metacognitive skills of the third grade students in the College of Education in the curriculum and teaching methods subject?

The significance of the study:
Sternberg's concept of intelligence is an integrated and comprehensive concept that is not only confined to school achievement skills, but also extends to many capabilities that help the individual achieve success in life and that he has multiple dimensions, and there are multiple methods for expressing talent, and he believes that teaching for intelligence The successful individual is designed to help all students benefit from their talents and abilities, as well as to compensate for the areas in which their talents have not developed as much (Sternberg& Grigorenko , 2005: 223).
Teaching for successful intelligence includes a way of looking at the teaching / learning process as it expands the types of activities and assessments carried out by the teacher, and this does not negate the presence of many good teachers who study for successful intelligence automatically, but there are many of them who do not study this way, Teaching for successful intelligence involves the use of a set of activities and goals that develop analytical, creative and practical thinking, as well as memory-based learning. Sternberg and Gregorenko have observed that teaching for successful intelligence improves performance even when teaching and assessment are directly dependent on information recall (Sternberg, 2005: 326).

The researchers believe that there are many reasons for this, perhaps the most important of them:

1. Teaching for successful intelligence leads to a more extensive and in-depth analysis of subjects, and more than teaching by traditional methods.

2. Teaching for successful intelligence encourages the use of more varied forms in coding study materials, which facilitates better retrieval of the material at the time of the exam.

3. Teaching for successful intelligence enables students to benefit from strengths and compensate for weaknesses.

4. The metacognitive strategies are mental processes, being a basis, a rule, and an executive tool that helps the student learn to control, control, plan, evaluate and implement his information and knowledge tools. They represent the learner's awareness of his knowledge and awareness of himself and others to be a tool in the educational situation to the fullest, and they are acquired by teaching and training to get Learner on Lifelong Learning (Hacker & Arthur, 2000: 15).

5- The metacognitive skills help students to focus their attention, understand the content, integrate new information with existing (previous) knowledge, and encode and store this information in a way that facilitates recall and recall (Raddoff & Samson, 1990: 2)

As teaching for successful intelligence stimulates both the student and the teacher, and therefore the teacher is expected to study more effectively, and students are expected to learn more motivated and in turn develop the personality of the learner (Sternberg & Grigorenko, 2002: 274).

The researchers believe that if teaching is done in ways and methods that concern different personal aspects and accommodate the characteristics of students, it will be a tributary to building and developing the learner's awareness of his cognitive ability related to the perceived procedural ability and that he can perform an act on the cognitive side, i.e. his ability to implement various activities with information knowledge content, and focus on aspects Practical performance, stimulating the creative and analytical aspect, and improving the outputs through the method of developing the competencies of the perceived knowledge of learners. On the other hand, if the positive impact of the results of this research becomes clear, it will provide a new space of theoretical proposals in the field of reliance on mental learning (successful intelligence) and indicate the extent of its effectiveness in each of the metacognitive skills: The importance of the current research appears through:

1- Enriching the theoretical educational literature, due to the lack of studies - according to the researchers' knowledge - that dealt with the topic of a successful intelligence strategy, and the skills of metacognition together, and thus this study will add a knowledge and application dimension in this field.

2- The study highlights the importance of a successful intelligence topic, because of its role of activating capabilities: analytical, creative and practical, increasing the skills of students beyond the knowledge.

3- Training students on creative solutions to the problems facing them.

4- The possibility of opening the way for other studies and research, in the field of brain-based research to solve problems creatively.

5. If it is found that the level of successful intelligence is high, this requires employing this high level and investing it in increasing and raising the skills of students beyond the knowledge, and it can benefit from this level in all areas of life, whether academic or social.

6- To meet the need to review teaching strategies and enhance their role in order to introduce teaching strategies that provide students with the opportunity to learn in new ways that make them more positive.

The aims of the study:
The current research aims to identify: the effect of a successful intelligence strategy on metacognitive skills among third grade students / College of Education in the curriculum and teaching methods subject.

The hypothesis of the syudy:

For the purpose of achieving the research goal, the two researchers developed the following zero hypothesis:

1- There is no statistically significant difference at the level of statistical significance (0.05) between the average scores of students of the experimental group who are studying according to the strategy of successful intelligence and students of the control group who are studying according to the usual method in the metric of metacognitive skills.

Search limits: The current search is limited to: -
1- Human limit: - Third grade students.
2- Time limit: - The academic year (2018-2019).
3- Spatial limit: - University of Kufa / College of Education / Department of History
4- Knowledge limit: - It includes: vocabulary of the subject (teaching methods)
Defining terms

The strategy of successful intelligence: 1-: (Strenberg, 1999) as the ability of the individual to succeed through the cultural and social context to which he belongs and in light of his criteria and relying on his ability to mix the manifestations of successful intelligence (analytical - practical - creative) so that they form one tissue in a harmonious way. (Strenberg, 1999,112-113)

Procedural definition of a successful intelligence strategy: It is (a set of pre-planned steps and procedures that fit the content of the subject of the lesson, followed by the researcher inside the classroom and employed by third-grade students - Department of History when they deal with curriculum material information and teaching methods identified by the research and include the following steps.) The subject of the lesson is in the form of a question, gathering and classifying information, careful observation of factors associated with the problem, conducting experiments, and analyzing and interpreting the results).

1- Skills beyond metamorphosis knowledge "(2003), as: To know what the individual possesses about his cognitive system or the individual's thinking about his thinking, and includes the individual's thinking about what he knows and what he does not know and observing how his learning and thinking process proceeds (Al-Hillah, 2003: 77).

Procedural definition: The total score obtained by the student on the scale of metacognitive skills prepared by the researcher, which measures skill (planning, monitoring, controlling, and evaluation).

Theoretical framework and previous studies:

The first axis / successful intelligence

Successful intelligence can be defined as a set of capabilities used to achieve an individual's goals in life within the socio-cultural context through the selection of the environment, its formation, and adaptation to it, and it includes three capabilities: analytical, creative, and practical capabilities (Sternberg, 1998b: 15).

Human intelligence is one of the important and vital issues that occupied most researchers and scientists because of its association with various academic, social, technical, professional and other fields, as the human brain that represents the basic part of the central nervous system is very complicated in terms of structure, and works in the very accuracy and efficiency, and what progress has been achieved Humanity is only thanks to the brain, and the important aspect of the functions of that ability is intelligence (Zaghloul and Ali, 2009: 313).

Sternberg's successful intelligence theory is a gateway to understanding the cognitive processes of the dimension of intelligence; and the reason Sternberg prefers the term successful intelligence to assert that intelligence is more than what mental intelligence tests measure. Intelligence relates to success in life. For the individual is the product of applying new thinking strategies to confront problems creatively and quickly, and adapting to contexts by choosing and reshaping the environment. This theory includes three capabilities: analytical, creative and practical. (Abu Alam, 2010: 299).

As analytical intelligence allows the individual to examine and choose the skills that will solve the problem, creative intelligence shows the individual's ability to think positively and independently based on his previous knowledge to complete his targeted mission, whereas practical intelligence shows the individual's ability to benefit from his previous or acquired knowledge and employ it to achieve success In his environment and daily life, dealing with the individual with successful intelligence enables him to analyze the problem, find a solution, and apply the solution in practice (Al-Faouri, 2011: 3).

Therefore, the importance of successful intelligence becomes evident in that it develops an individual's abilities to adapt to changing, unique and new circumstances, because successful intelligence is the ability to learn and think by using previously discovered models and relationships to solve new problems in unfamiliar contexts (Borich, 1996: 65)

The literature explaining successful intelligence with its three-dimensional dimensions indicates that individuals who have successful intelligence use better developed strategies, which helps them to increase their achievement and develop their skills more than others who do not have successful intelligence.

Balancing analytical, creative, and practical abilities: Creative work requires applying the three thinking capabilities (analytical, creative, and practical) and balancing them together. Analytical ability is often the ability to think critically. The person who has this skill analyzes and evaluates ideas. Every person has good and bad ideas, and this applies to all individuals, including the creative person who uses well developed analytical capabilities to reach and test the contents of creative ideas, and creative capacity is what is generally seen as creativity, which is the ability to generate new ideas Exciting, a person is usually considered creative if he is a good constructive thinker, and can find connections between things that others cannot distinguish automatically (Sternberg & Grigorenko, 2000: 20).

As for the practical ability, it is the ability to translate theory into practice and translate abstract ideas into concrete practical achievement, and the contents of the theory of investment in creativity indicate that good ideas do not market themselves, but the creative person uses practical capabilities to convince others that the idea is worthy of attention, and thus it can be said that the ability The process enables us to discern ideas that are acceptable to others (Sternberg & Grigorenko, 2005: 94).

A person who uses only creative ability in thinking may come up with creative ideas but he cannot distinguish them, and a person who uses analytical capabilities only may be a distinct critic of the ideas of others, but he is unable to generate creative ideas, but a person who is characterized by practical capabilities only may promote ideas that have A value which has no value alike. In sum, the individual needs creative thinking to generate ideas, and analytical thinking to judge the quality of these ideas, while he needs practical thinking to employ these ideas and persuade others of their value (Sternberg & Grigorenko, 2000: 23)

The structure of successful intelligence theory

Sternberg's theory is based on information processing theory, and it includes three sub-theories, namely structural theory, empirical theory, and contextual theory, and these three theories are used to clarify the inner mental world of learners, and how they use intelligence to interact with their environment. The following is an explanation of these theories:

1-1-2- Synthetic theory

This sub-theory defines the components of information processing that do the internal representation of experience, and is also used to describe the inner mental activities of the learner, and Sternberg believes that intelligence can be understood through its inclusion of three aspects, and its relationship to the inner world, and the outside world of the individual, through experience that mediates the relationship between The inner and outer worlds (Abu Gado, 2006: 26-27).

Sternberg distinguished three types of information processing components:
A- Beyond the components is a higher control process that is used to implement planning, monitoring, and evaluating an individual's task performance.
B) The performance components: represented in implementing the instructions behind the components, such as: applying a previously reached conclusion on a similar new situation. (Al-Safi, 2015: 95)
C - Knowledge Acquisition Components: These are the processes involved in learning new information and storing it in the memory
Optional coding: a process whereby new and relevant information is extracted and separated from new, unrelated information.

Optional collection: A process whereby optionally encoded information is collected in a specific way, which in turn increases the internal coherence of this information.

Optional comparison: In this process, the encoded information is linked, and then optionally aggregated, with the information already in memory to increase the interconnection between the newly structured knowledge structures with the previous knowledge structures (Sternberg & Grigorenko, 2005: 218).

2-Experimental theory This theory links intelligence and experience that the individual is going through, as it refers to the criterion of measuring intelligence, which depends on the availability of one or both of the following two skills: the illusion of novelty or modernity, which is the ability to deal with new tasks and requirements of the new position, and automation, which is The ability to process information on its own, whether this information is complicated or simple, individuals with intelligence accomplish this process in a simple and easy way, while less intelligent individuals need to pressure and control in order to accomplish the same task. (Jaber, 2015: 122).

3- Contextual sub theory

This sub-theory reflects Sternberg's belief that the primary goal of intelligent behavior is to achieve practical goals, and to do so individuals use their information processing components to adapt to the requirements of their environments to modify or shape the environment that is consistent with their capabilities (Abu Gado, 2006: 31).

Applications of the theory of successful intelligence (three-dimensional intelligence): The teachers who use the theory of successful intelligence seem to be trained to evaluate smart behavior among students, and this theory requires changing methods when assessing, since the traditional methods of teaching students by performing them in tests only do not achieve goals The theory of successful intelligence, as the goals of this theory state that students demonstrate their knowledge, understanding, and skills during their performance of problems and tasks in the real world during the learning process, and the learning process should be centered on the learner (Sternberg, 2002b: 102). Sternberg has proposed two types of T. CARE is in their use tasks, namely:

Active thinking: It is thinking that takes place in the mind of the conscious individual, and is directly related to actual thinking.

Automatic thinking: which the mind uses in an unconscious way to solve problems.

Successful intelligence strategy: This strategy depends on formulating the subject of the lesson in the form of a problem or question that raises the interest of learners and pushes them to practice different types of educational activities to reach to solve the problem such as collecting and classifying information, careful observation of factors associated with the problem, conducting experiments, and analyzing and interpreting the results, which They develop the spirit of research and training them in the style of scientific thinking, and one of its most important characteristics:

- Stir up curiosity and enjoyment at work.
Stir up broad thinking, search for many solutions, and choose the right solution.
Learners are trained to face real-life problems.
Create at the individual the ability to criticize, analyze and compare.
- The learners develop the spirit of teamwork.
Linking teaching to the reality of resourcefulness. (Al-Badran and Dergham, 2016: 305)
   The researchers believe that the importance of the strategy lies in the ability to make learners active in the classroom by relying on themselves, which leads them to benefit from their previous cognitive experiences and employ them to solve the problem, and to raise the motivation of learners to think and implement mental processes by finding questions and answering the questions of the other party and the possibility of applying what the learner learns And by moving to the committees by application, we put the learner in front of the possibility of benefiting from the knowledge system already available to him, which helps to consolidate new information and get out of the state of negative recall of information.

The second axis / beyond knowledge
   Many educators, such as (Bruer, 1995: 35), (Lindstrom, 1995: 28) and (Henson and Eller, 1999: 288), see that metacognition seeks to educate the learner about the patterns of thinking he uses in light of his awareness of control and control methods. And controlling learning processes or directing or organizing those processes, in order to understand or understand the contents of learning. From this standpoint (Afaneh and Al-Khazindar, 2004: 135-136) sees that metacognition is divided into two main components:
A- Self-awareness of knowledge.

B- Self-organization of knowledge.

Devine (1993) noted that metacognitive variables play a very important role in successful, correct writing of a second language rather than linguistic abilities. And she continues to say, "Second language writers sometimes encounter a problem that is the basis of knowledge beyond limited knowledge." Therefore, they are unable to determine whether they are making progress toward the goal of the question of writing. "She adds that having a strong foundation for metacognition is crucial for successful learning, for a good learner is" a person with extensive information toward the self as a learner, about the cognitive nature of the task, and about Appropriate Strategies for Achieving Cognitive Objectives "(Devine, 1993: 109).

 Sternberg (2002) mentioned the main metacognitive skills that are almost identical to many researchers:

A- Planning:

    It means the individual's ability to set goals and steps to carry out the task within a specific period of time that may be long or short, and to suggest appropriate strategies to achieve it. This stage includes many questions that the individual places on himself, such as: What is the goal that I seek to achieve? What kind of mission will I carry out? What is the appropriate strategy for that? .... etc., and the planning stage is one of the basic stages in metacognition as a way to organize the main elements related to the subject, and through it ideas can be organized in a logical and reasonable sequence, and it includes: (Defining the goal and feeling of the problem and its nature, choosing the implementation strategy Appropriate with the problematic situation, arranging operations in an orderly and sequential manner, identifying potential obstacles and mistakes to try to avoid them, identifying methods of facing obstacles, difficulties, and errors, predicting possible and expected results)

B- Control and control:

    It is intended to keep the target in the focus of attention to continue monitoring during the implementation of the task, and the process of monitoring and control includes many questions directed by the individual to himself such as: Is the work that I work on meaningful? Am I going the right way while doing the job? ...... etc. This skill includes (keeping the main goal at the center of attention, maintaining an orderly sequence of operations, knowledge and making sure that the sub-goals are achieved, learning when to move to another appropriate process, identifying and correcting errors and obstacles, and knowing how to overcome difficulties)

 C- Evaluation:

   It is intended to judge what has been learned and what has been accomplished from the set goals, and the evaluation process includes many questions directed by the individual to himself such as: Have my goals been achieved? What has worked for me? Is the strategy followed better than others? ..... etc. This skill includes (assessing the goals achieved, judging the results and their efficiency, assessing the strategies used and their suitability, assessing how to correct errors and obstacles, assessing the effectiveness of the steps taken and implementing them (Sternberg, 2002: 46)

    The researcher will adopt this classification in constructing a scale of metacognitive skills, as it includes the main skills agreed upon by most researchers.

Previous Studies:

Studies related to (successful intelligence)

1- Abu Gado Study (2006), Jordan

        This study aimed at identifying (the effect of an educational program based on the theory of successful intelligence in developing the analytical, creative, and practical capabilities of mentally challenged students and knowing the effect of the educational program on student achievement in the Arabic language). To achieve the goal of the study, the researcher chose a sample from two random classes out of four Classes for the tenth grade of the Jubilee School are (46) male and female students who were divided into two experimental and control groups. As for the study tools, the researcher developed a Jordanian image of the Sternberg triple test of capabilities. The researcher used the following statistical means: - Analysis of common variance (ancova), and comparison of the averages of achievement of the experimental and control groups. After analyzing the result statistically, the researcher reached: A statistical effect of the educational program based on the theory of successful intelligence in developing the analytical, creative, and practical abilities of outstanding students Mentally in favor of the experimental group, and the results also indicated that there was no effect of the educational program based on the theory of successful intelligence in improving achievement in the Arabic language for mentally challenged students. (Abu Gado, 2006, 8-234)

2- Habib Study (2015), Iraq

   This study aimed to identify (the effectiveness of teaching based on the theory of successful intelligence and self-organized learning in the achievement of biology and the development of cognitive competence for fifth scientific

students), and to achieve the goal of the study, the researcher chose the fifth scientific students from the Sana'a prep for girls who number (95) students In the subject of biology, distributed among three people to represent the final application sample by (32) students for the first experimental group that was studied according to the theory of successful intelligence and the second experimental study that was studied according to self-organized learning (32) students and the control group (the usual way), either Tools, the study researcher applied to articles (achievement test and measure enough cognitive perceived), and the researcher used statistical methods (analysis of variance and follow-up significance of differences in Hevah test)

1- The study reached the following results: The presence of a statistically significant difference in the mean of the post achievement achievement in biology subject for the fifth scientific grade between the three groups and for the benefit of both the first and second experimental groups compared to the control group while the difference was not statistically significant between the first experimental group Which was studied according to the theory of successful intelligence and the second experimental group that studied according to self-organized learning.

2- There is a statistically significant difference in the mean scale of the perceived cognitive adequacy scale between the three groups, as well as a statistically significant difference in the mean difference between the pre and post test average of the cognitive adequacy scale in favor of both the first experimental group and the second experimental group compared to the control group, which indicates the existence of effective teaching The document is according to the theory of successful intelligence and self-organized learning in developing the cognitive competence of fifth-grade students in scientific knowledge (Safi, 2015: i-k)

Discuss previous studies on successful intelligence: -

Previous studies agreed with the current study on the use of the experimental approach and aimed at the study (Abu Jadu, 2006) (the effect of an educational program based on the theory of successful intelligence in developing the analytical, creative, and practical capabilities of mentally challenged students and knowing the impact of the educational program on student achievement in the Arabic language). , While the study (Habib, 2015) aimed (the effectiveness of teaching based on the theory of successful intelligence and self-organized learning in the achievement of the subject of biology and the development of cognitive competence of the fifth scientific students). Studies differed in their tools, as some of them developed the Sternberg triple test of abilities such as the study (Abujado, 2006), while the study (Habib, 2015) relied on preparing an achievement test and a measure of perceived competency. As the studies varied in their samples, some of them were a sample from the tenth grade from a school The jubilee are (46) male and female students, such as the study (Abu Jadu, 2006), and some of them are fifth-grade female students from Sana'a Preparatory School for Girls, whose number is (95) female students, such as studying (Habib, 2015). As for the current research, it was appointed by students of the College of Education. These studies agree with their results, while the current study may or may not agree With previous studies on the effectiveness of the strategy of successful intelligence, and that depends on the results that the researcher will reach.

Studies related to (metacognition)

1- Study (Downing, etle, 2008) - Hong Kong: The study aimed to identify the impact of education with a problem-solving strategy in developing epistemological skills, and the study sample consisted of (66) male and female students from the first stage students at the University of Hong Kong, used Experimental design with partial control (an experimental group and another control group) was divided into two groups, one experimental was studied according to the problem-solving strategy, and the other control was studied according to the usual method, and the instrument used: the researchers adopted the Weinstein and Plamer (2002) scale of the epistemological skills of 80 (Paragraph distributed over ten areas. Apply the scale before and after the reward The experiment, which lasted three courses at the rate of (13) weeks per course, and the results showed the superiority of the experimental group over the control group in the development of epistemological skills. (Downing, 2008: 609)

2- Study (Al-Kaabi, 2013): "The study aimed to identify the impact of the self-scheduling strategy in developing metacognitive skills among literary fifth graders in history, the research sample consisted of (54) students. The researcher used experimental design with partial control. For the experimental and control groups with the test (tribal - post), the two research groups were rewarded with a number of variables, including (age, previous achievement, parents' achievement, intelligence, and metacognitive skills), and the research tool was prepared by a meta-knowledge scale consisting of (60) (Paragraph distributed over the fields) planning, monitoring and monitoring Km, evaluation), and after processing the data showed statistically the results of the study of the experimental group on the superiority of the control group in the development of skills beyond knowledge. (Al-Kaabi 2013: (d) e)

Discuss previous studies on metacognition skills: -

Previous studies agreed with the current study in using the experimental approach. Studies have also agreed on its used tool, which is a measure of metacognition skills. Studies also varied in their samples, some of which were a

sample of the first stage students at the University of Hong Kong, numbering (66) male and female students. Like studying (Downing, etle, 2008), and some of them are fifth-grade literary students in the history subject of (54) students such as studying (Al-Kaabi, 2013) As for the current research, it was a sample of the students from the College of Education. As for the current study, it was from the students of the College of Education, the third stage, and it may agree with previous studies or not, which the researcher will reach.

Search procedures: The search procedures include the following:

First: the experimental design: Choosing the appropriate experimental design for the phenomenon to be studied in research is necessary to reach answers to research hypotheses and contribute to the experimental control of the research and serve as a work program for how to implement the experiment and planning the conditions and factors surrounding the studied phenomenon and observing it (Al-Fatli, 2013: 158) expression About design as shown in Table (1)

The group	Independent variable	Post-test
Experimental	successful intelligence	strategy beyond knowledge
Control	-----------------------	

Second: The research community and its sample: The current research community is corrupted from all third grade students / History Department / College of Education / Muthanna University / for the academic year 2017-2018, and all third grade students / History Department / College of Education / University of Qadisiyah, and for the above purpose the researcher visited the Division Registration in the faculties of education and the concerned departments, where the number of students reached (400) students, so the researcher chose intentionally the third grade students / history / at the College of Education / University of Kufa as a sample for his community, and he chose in the simple random way Division (B) to represent the experimental group that will study its students According to the strategy of successful intelligence, it has The number of students reached (42) male and female students, and he chose Division (A) to represent the control group that will study her students in the traditional way without exposure to the independent variable. The number of her students reached (40) male and female students after the exclusion of the Taliban, who failed from last year.

Third: Equivalence of the two groups: The researcher was keen, before embarking on his experience, to conduct an equivalence of the two research groups (control and experimental) in the temporal age, the academic achievement of educational materials, the academic achievement of the parents and the degree of intelligence, and found that the two groups are equivalent in the studied variables.

Fourth: Research requirements: determining the scientific subject, the researcher has determined the scientific subject to be studied by students of the two research groups in the academic year (2017-2018) according to the vocabulary of curricula and methods of teaching the course for the third grade in cooperation with the subject teacher in the Department of History / College of Education / University of Kufa and over A study course which is (teaching methods, general goals, interim goals, behavioral goals, teaching methods, planning in teaching, how to prepare the plan. For the purpose of making sure of its validity, it is presented to arbitrators with experience and specialization and expressed their opinions in it and thus formulated according to the proposed amendments)

2- Defining behavioral goals: The researcher has formulated a number of behavioral goals in a way that describes the learner's behavior and the learner is expected to be able to perform it, and the number of cognitive behavioral goals has reached (117 behavioral goals) distributed across the six levels (remembering, understanding, applying, analyzing, synthesis, The evaluation) with the aim of adopting them in the teaching plans of the two research groups. It was presented to a group of experts in the teaching methods to indicate their opinion on them and the extent to which they met the content of the subject and in light of their opinions and proposals, they were modified.

3- Preparing study plans: The researcher designed a set of teaching plans for the two research groups. The number of plans reached (28) teaching plans, at the rate of (14) plans for the experimental group according to the successful intelligence strategy, and (14) plans for the control group according to the usual method. Sample plans were presented. The teaching committee includes a group of arbitrators and specialists to ensure its suitability and its measurement of the formulated goals and in the light of their opinions and proposals, it has been modified to take the final version.

4- Building a metaphor of knowledge skills: After reviewing a set of measures that measure the above cognitive skills, (53) items were formulated with (18) items for planning, (20) items for monitoring and control, and (15) items for evaluation.

And with five alternatives depending on the degree of practice which is: (very high, high, medium, few, very few), with grades ranging from (5) degrees for the alternative (very high) to one degree for the alternative (very few), the accuracy of the scale was confirmed in two ways :

Method 1: Virtual Validity

For the purpose of confirming apparent honesty, the scale was presented in its initial form with a description of the most important concepts contained therein by a group of experts and specialists (Appendix 2), to indicate the validity of the paragraphs and the accuracy of their distribution to the areas to which they belong, and the necessary adjustments were made in the light of their observations to make the scale Of (51) items, (17) items within planning, (20) items within monitoring and control, and (14) items within evaluation.

Method 2: Construction Validity:

Correlation coefficients were calculated between the degrees of the paragraphs and the overall degree of the scale, and after testing the significance of the correlation coefficients by comparing them with the tabular value at the level of significance (0.05) and degree of freedom (98) and (0,196), they were all significant except for paragraph (27), so they were deleted.

5. Exploratory application of the scale: The scale was applied to a sample of (100) male and female students of the fourth stage in the Department of Biology - Morning Study at Al-Qadisiyah University / College of Education on Tuesday corresponding to (26/4/2011) in order to ensure clarity of paragraphs and instructions The answer is also for the purpose of statistical analysis of its paragraphs, as follows:

Distinguishing power: For the purpose of finding the discriminatory power of the scale paragraphs, the students 'answers were arranged from the highest total to the lowest degree, and (27%) were taken from the top and bottom of the scores to determine the number of members of the upper and lower groups, and the T-test was used for two independent samples. test) to ensure the significance of the differences between the averages of the grades of students of the upper and lower groups, and the results showed that the differences for all the paragraphs were indicative at the level of significance (0.05) and the degree of freedom (52) (Appendix, 12)

Stability: To ensure the stability of the scale, the Coefficient Alpha formula was used, as the stability coefficient reached (0.92), which is a high stability factor.

6. The scale in the final form: The scale damaged its final form of (50) items distributed among the three areas, where the number of paragraphs within the planning field reached (16) items, namely: (1,2, 7, 12, 13, 18, 27, 30, 31, 33, 34, 36, 39, 43, 44, 49). The number of paragraphs within the field of monitoring and control is (20) paragraphs, namely: (3, 4, 8, 9, 10, 11, 14, 15, 19, 20, 21, 24, 25, 28, 29, 35, 38, 41, 46 , 50). The number of paragraphs within the field of evaluation is (14) items, which are: (5, 6, 16, 17, 22, 23, 26, 32, 37, 40, 42, 45, 47, 48), thus becoming the highest degree that an individual can obtain. In the scale (250) and the lowest degree (50) with a theoretical average of (150) degrees, (Appendix, 13).

Experiment application /

It was agreed with the Presidency of the Department of History that the researcher should teach teaching methods on his own, and under the direct supervision of the course professor, and the class schedule was also coordinated in a manner that ensures adequate time for each group, as well as the place of teaching.

The experiment was started on Sunday 1/3/2019 by applying the scale of epistemological skills, tribal, and actual teaching began on Tuesday 17/5/2011 and continued in the following weeks according to the prepared plans

 5- Statistical means: (T-test for two independent samples, Kay square (Ka2))

Second: Interpretation of metacognition skills scores:

The results showed the superiority of the experimental group over the control group in the (meta-knowledge skills scale) where the use of a successful intelligence strategy had a positive effect in raising the level of meta-knowledge skills and the reason for this may be due to:

1. The strategy of successful intelligence provided sufficient space for students to rely on themselves and think in terms of arriving at an answer, which gave them an enjoyment of work that made studying curricula and teaching methods more vital.

2. The excellence of the experimental group students because they are more receptive and inclined is attributed to modern methods in the teaching process because their curiosity may lead them to explore aspects of the new strategy in which they study curriculum and teaching methods, and eager to pursue the lesson, which increases their understanding more than the traditional method they are used to.

Third: Conclusions: In light of the results reached by the researcher, the following can be concluded: -

1. The use of a successful intelligence strategy based on the theory of successful intelligence in teaching the subject of teaching methods can achieve the educational and behavioral goals required for students at this stage better than the

usual methods; as it provides the learner with a general idea of the subject minutes that he will study and works on building an intellectual bridge between What he will learn, his cognitive structure, and the educational situation, and provides the learner with the organized rules that enable him to link the previous information with the new and thus fix it and summon it when needed.

2. Teaching on the basis of a successful intelligence strategy is more effective than the usual way, as it gives positive feedback to the learner in the educational situation, by raising the interest of the learner in the subject matter and making him aware of the problem in the subject.

3. Teaching with a successful intelligence strategy contributed to the development of supra-cognitive skills among students in the research sample, compared to each in the usual way.

Fourth: Recommendations: In light of the results of the research, the researcher recommends the following: -

1- Organizing training courses for teachers focusing on the use of modern trends in teaching educational materials, including the successful intelligence strategy.

2- The necessity for teachers to pay attention to developing the extra-cognitive skills of their students through the use of appropriate strategies for this purpose.

3- Lack of focus on raising student achievement only, as student achievement is no longer the only problem at the present time, but attention must be paid to developing students 'ability to various methods of thinking, including decision-making, problem-solving, and epistemological thinking.

Fifth: Proposals: As a complement to the findings of the current research and its development, the researcher suggests the following:

1. Study the effect of using a successful intelligence strategy on other variables, such as critical thinking, innovative thinking, visual thinking, and visual perception.

2. Study the effectiveness of a successful intelligence strategy in teaching other subjects and for different educational stages.

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