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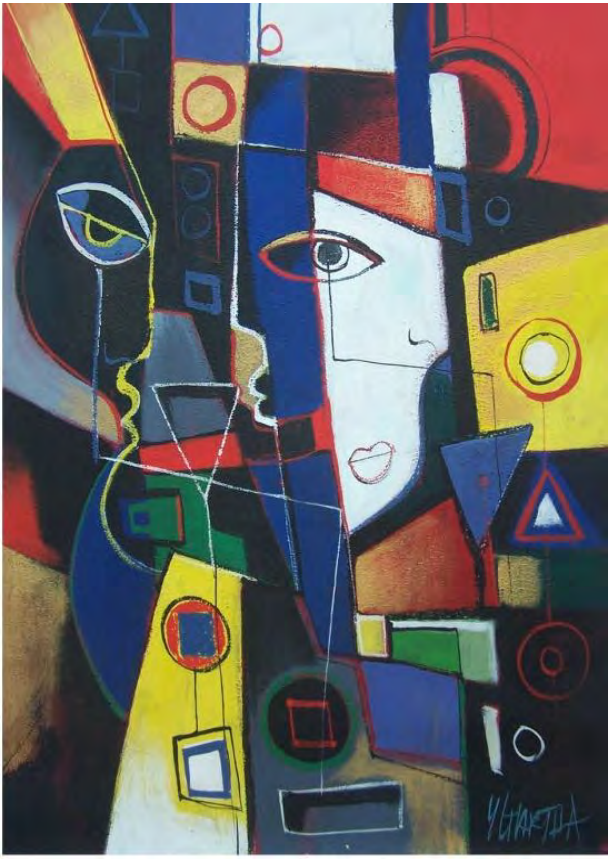

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Effect Of Realistic Education In Metacognition Skills Of Second Grade Intermediate Male Students In Mathematics

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Abstract
The objective of the current research was to identify the effect of the actual education model in the skills of the second grade students in mathematics. The sample consisted of (62) students. The experimental group represented (30) students and the control group (32) To determine the equivalence of the two groups in the variables (age, intelligence, past knowledge, meta-knowledge skills). After determining the subjects of the scientific subject to be studied during the period of application of the experiment, the behavioral goals were formulated and prepared for the teaching plans and presented to a group of experts to judge their validity and made amendments Necessary became V Ready to apply in the light of their opinions.

Efecto De La Educación Realista En Las Habilidades De Metacognición De Los Estudiantes Varones Intermedios De Segundo Grado En Matemáticas

Resumen
El objetivo de la investigación actual fue identificar el efecto del modelo educativo real en las habilidades de los estudiantes de segundo grado en matemáticas. La muestra consistió en (62) estudiantes. El grupo experimental representó (30) estudiantes y el grupo de control (32) Para determinar la equivalencia de los dos grupos en las variables (edad, inteligencia, conocimiento pasado, habilidades de metaconocimiento). Después de determinar las materias de la materia científica que se estudiarán durante el período de aplicación del experimento, los objetivos de comportamiento se formularon y prepararon para los planes de enseñanza y se presentaron a un grupo de expertos para juzgar su validez e hicieron las modificaciones necesarias. aplicar a la luz de sus opiniones.

The researcher prepared a measure of the skills of the knowledge behind the component (36) paragraph and verified the validity of the test by presenting it to the arbitrators, and calculate the stability of the scale using the alpha-Cronbach equation of 0.87)), and the method of return of the scale with a stability rate (0.85) In the second semester of the academic year (2019-2018), and applied the metacognitive skills scale in the final form on the students of the research sample and after the collection of data and the use of the appropriate statistical means, the results of the research raises a difference of statistical significance at the level (0,05) The experimental group who studied on the basis of the actual education model in BC Yas knowledge skills, and in light of this result recommends the researcher use the model of realistic education in the teaching of students in the second grade the average because of the impact of the skills of knowledge and knowledge of the use of the model of real education in improving and developing the skills of the knowledge of the learners and the need to provide programs and courses Training courses for teachers of mathematics on the use of modern teaching strategies during the period of service. It is proposed to conduct a similar study of the current research on other variables such as the acquisition of concepts, modification of misconception

and levels of mathematical understanding and others.

Research problem:

The problem of the current research is that our educational institutions still rely on conservation and memorization in the teaching of mathematics, and that the failure to use the modern methods of effective effective led to low level of achievement of students, as well as lack of interest in students' mental abilities and abilities and the required diversity of teaching methods , This reality does not allow students to practice most of the activities themselves, and most of the teachers and teachers of mathematics care about the theoretical side without interest in the practical aspect, and this is what the researcher has been through his experience in the field of teaching mathematics for several years, so The first researcher to identify the reasons for the low achievement of sports from the point of view of the school and teachers who study mathematics for the second grade the average and through the survey of the views of a group by providing an open questionnaire to them and the results of this questionnaire indicate that there is a clear decline in the level of achievement sports second grade students And the lack of attention of some teachers to the skills of the knowledge behind their students, the lack of keeping pace with the modern methods and strategies in the education process for many of them, and the low levels of students in the previous (primary), and education They are motivated by information and vocabulary that do not meet the needs of learners and do not encourage the development of thinking.

The study of Khazraji (2013) indicates that one of the reasons for the poor level of mathematical achievement and the weakness of higher mental skills (skills of knowledge) is due to the weakness of the learner's knowledge of mathematical knowledge building as an integrated system that affects the learner's follow-up of the steps of his thinking and inability to plan concepts Mathematical systems and the consistency of their concepts. Therefore, the researcher suggested that one of the models of constructional theory is to test the model of real education to see how this model contributes to addressing or alleviating the problem of research.

Based on the above, the current research problem is reflected in the attempt to answer the following question:

- What is the effect of the actual education model in the skills of the second grade students in the intermediate grade and their achievement in mathematics?

research importance:

The importance of the current research is as follows:

1. The current research is in line with modern trends in the teaching of mathematics, as the model of real education represents one of these trends, which emphasizes the learner to become the center of gravity and has a leading role and the basic in the educational process.
2. Address the poor attention to the skills of knowledge in the attitudes of teaching and learning.
3. Enriching the educational institutions with the scientific facts that help the institutions in achieving the intellectual construction sober learners.
4. The importance of the current research in the use of a new educational model is the model of realistic education, which has never been applied in the Iraqi educational environment in the teaching of mathematics to the knowledge of the researcher.

Objective and hypothesis:

The current research aims at identifying the effect of the actual education model on the skills of the second-grade intermediate students in mathematics. To investigate the research objective, the following hypothesis was formulated:

There was no statistically significant difference at the level of significance (05.0) between the average score of the experimental group students who study according to the actual education model and the average score of the control group students who study according to the standard method in the researcher's meta-knowledge scale.

search limits:

Your current search is limited to:

1. Time Limits: The current research was conducted in the second semester of the academic year 2018-2019.
2. Spatial boundaries: the middle of the martyr Dr. Hassan Dhari al-Fayadh of the Directorate of Education Baghdad / Rusafa first.
3. Human Boundaries: Second-grade students in the average sample of the research after their distribution to two experimental and control groups.
4. Subjective Limits: The Mathematics Book for the Second Intermediate Grade, Part II-i 1,2017.

Terminology:

1 Effect: Al-Hanafi (1991): "The amount of change that occurs in the dependent variable after exposure to the independent variable". (Hanafi, 1991: 253)

2. Model: Ali (2011) defined it as "an illustration of events and facts and the relationship between them in the form of a court in order to help change events or facts that are unclear or incomprehensible." (Ali, 2011: 24)

3. The practical model of education was defined by Al-Khalili and Ashran (1996) as: "The use of the requirements of structural philosophy and the principles of teaching science in the various real conditions of the nature of the subject of the lesson and the characteristics of the learners, teacher and school, which consists of three components (analysis of reality, planning and implementation) 1996: 450)
The researcher knows the procedure: a three-phase model, namely, the actual analysis and the planning of the lesson and the implementation, is used in the teaching of mathematics the second intermediate grade of the experimental group to determine its impact in the skills of knowledge and mathematical achievement.

4. Knowledge and Knowledge of Knowledge (Abu Riash, 2007) "Holding the learner to think, meditate and pause from time to time in the course of an activity to review and modify his plan and see if it is moving towards the goal, and whether it will change this method." (Abu Riach, 2007: 38)
The researcher is defined by the researcher as: Higher mental skills whose function is planning, monitoring and evaluation used by the second grade students in the research sample during the period of application of the experiment and measured from the students' answers to the sections of the teacher's skills skills scale prepared for this purpose.
Realistic Education Model:
The model of real education is one of the models of teaching and learning that has recently emerged. It is based on the ideas of structural philosophy or constructivism and its applications in the field of education. These models are defined as: a set of plans that shape the stages of teaching and learning in the light of the foundations of structural theory or constructional approach. Models can contribute to the achievement of learning outcomes based on meaning and understanding. (Sabri and Taj Eddin, 2000: 10)
Stages of the model of real education:
The realistic education model consists of three stages, which will be addressed in some detail and as follows:
Phase I: Reality Analysis:
The reality is the basic premise in the model, and the reality is analyzed before the implementation of the lesson, the teacher must answer the following questions:
1. What is the nature of the subject or the scientific content to be studied?
The answer to this question requires that the teacher review the material that he will study from the perspective of teaching in direct experimenta-

tion by the learners themselves, if the material is experimental, it should determine the tools and devices required and the procedures of implementation of the experiment by the learners in groups, The educational means suitable for the scientific material.
2. What is the teacher's ability and ability to teach this subject or content?
The answer to this question requires that the teacher be realistic with himself, and examine the article and look at the extent of the ability and control of them without having any cognitive impairment, and how to conduct scientific experiments required by the nature of this article.
3. What is the reality of students who study this subject?
The teacher's thinking of what he has asked for in terms of their skill and knowledge levels is a requirement of the model, and he should prepare a set of intriguing questions within the scientific subject he will study.
4. What is the reality of the school in which the topic or content will be taught?
The teacher must be fully aware of all the holdings of the educational institution in which he works in connection with the equipment, materials and laboratory tools and ensure their safety.
5. What is the reality of the environment and the society in which the learner lives?
The question arises within the model comes from linking the scientific content with the student's realist environment, which makes science important in his life and earns his familiar meaning, as the student seeks the applications of science in his life. (Razuki, 2015: 350)

Stage 2: Planning for teaching
This stage represents the written framework for what is being done during the lesson, and focuses on the preparation of a teaching plan, consisting of several elements:
1. Introduction of the input (incentive configuration):
The teacher must determine how the lesson begins to stimulate learners' motivation to learn and stimulate their scientific curiosity. This is done by:
a. The preparation of a question that raises the cognitive contradiction of the learners, so that it shows that the learners' information is not enough to explain the natural phenomenon that they are studying.
B. The teacher performs an exciting activity for learners.
C. Link the subject of the lesson to the lives of learners.
2. Determining principles, generalizations and laws to be taught:
The teacher determines the principles, laws, and scientific concepts to be

learned.

3. Outline the objectives identified:

The teacher must formulate a specific number of goals that learners want to reach after carrying out the activities and experiences specified in the lesson, be varied (knowledge, skill, and sentimental) and also appropriate to the levels of all learners, because each person builds his knowledge based on previous information Which he owns and needs.

4. Identify the thought-provoking questions to be raised in the lesson:

The teacher should write a set of questions that help him to uncover the misconceptions that he expects from the learners, and prepare the questions that lead them to think about their activities and experiences.

5. Determine the experiences and activities to be implemented by the learners:

It requires the teacher to determine the way learners should do to answer thought-provoking questions, and it is useful to prepare a teacher's worksheet containing thought-provoking questions for learners.

6. Preparation of structural assessment questions and dialogue:

This model requires the teacher to write a number of questions that will be raised in the dialogue based on the implementation of activities and experiences.

7. Identifying aspects of linking scientific knowledge to the life of the learner and the environment:

The teacher must determine how the scientific subject relates to the lives of learners and their local environment.

(Zubaidi, 2003: 88)

Phase 3: Implementation of the lesson: Execute The Lesson

This stage focuses on what is really going on in the classroom as it consists of sequential steps:

1. Entrance: It is entered through the incentive configuration, and to stimulate the curiosity of learners and participate in activities.

2. Address the misconceptions of learners: Questions are asked about the previous cognitive state and correct any error in the understanding of learners of the previous concepts, and it is useful to follow the following steps:

Step 1: Dissatisfaction with misunderstanding:

The teacher enters into a cognitive dialogue with the student who has the wrong understanding and concentrates on this understanding so that the student doubts what he understands. It shows him that this understanding has not succeeded in providing sound answers to the successive questions. Of the theoretical or experimental results, and makes the learner ready to

accept the alternative that will be presented to him, and then the teacher moves to the second step.
Step 2: Accept sound scientific understanding:
In this step, the teacher should present the information that has been addressed in the lesson in its proper form. Although the student is expected to accept this information in its proper form, he may not be able to defend it, and then the teacher should move on to step 3.
Step 3: Adopting a sound scientific understanding:
Here, the teacher presents proofs and evidence of the validity of the information, including the educational presentations or laboratory experiments that the student himself participates in - if the situation requires it - and the new information is subject to the same set of questions that were first raised in the face of misperception and shows their ability to withstand And provide correct explanations, and this step to confirm the learner the validity of information in the form provided by the teacher, which encourages him to stick to it to compensate for the misunderstanding that is supposed to be freed from him after completing this step. (Razuki, 2015: 351)
3. Activities: Students are divided into heterogeneous collaborating groups with four to five students or by workplace. Each group has a head to organize the work. The teacher has the right to ask any member of the group to give an answer to this group. An error is made by the entire group, and the groups are rewarded for co-operation by increasing the scores in any teacher's classroom test. The groups are collaborating in one group and competing for the win, then distributing the work papers containing the thought-provoking questions.
4. Session of discussion and dialogue: where the collective discussion is conducted as the teacher conducts dialogue towards the concept or principle required to learn.
5. Organization: Direct teaching by the teacher, organizes students' conclusions and formulate concepts, principles and laws in the correct formulation.
6. Application: In this step, link the results of the lesson to the lives of learners or new scientific positions.
7. Closing: In this step summarize the most important points of the teacher by the principles and generalizations that reached and possible applications, preferably written on the whiteboard in a clear line.
(Majdi, 2004: 854)
The foundations of the model of real education:
The model is based on a set of basic principles as follows:

1. Building Knowledge: This means that learners have the ability to organize knowledge and think through complete environmental tasks.
2. Linking the personal world of learners with the scientific content they teach to make learning meaningful and important to them.
3. The importance of educational activities outside the school: In the sense of providing learners the ability to link their personal knowledge and real problems, that is, linking their personal experiences and experiences, attitudes and problems in their scientific life.
4. Cooperation and communication: In the sense of providing learners with the skills that enable them to cooperate and interact positively and communicate with each other about the content of scientific content.

(Abu Daqqa, 2017: 31)

The importance of the model of real education:

1. Depends on real real tasks.
2. The scientific content relates to the reality in which the learner lives, which makes learning meaningful and useful to them.
3. Develop cooperation and positive communication between learners.
4. Contribute to the adjustment of alternative perceptions of learners.
5. Develops scientific trends about the environment, society and various subjects. (Abu Daqqa, 2017: 35)

The role of the teacher in the model of real education:

1. Analyze the reality surrounding the learner.
2. Raise learners' attention and increase their motivation towards learning.
3. Prepare a set of questions that raise the thinking of the learners.
4. Preparation of a set of questions revealing the previous information among learners.
5. Preparing dialogue questions and constructive evaluation. (Jad Haq, 2007: 74)

Knowledge Skills:

The concept of knowledge and knowledge entered the field of cognitive psychology at the hands of John Flavell in the mid-seventies, and metacognition is one of the most modern topics of psychology although it is not a new idea. James and Dewey, To meta-processes in terms such as poetic hope through the process of thinking and learning. (Al-Atoum, 2004: 207) Falafel was the first to use the term meta-knowledge in educational research in 1976. He observed that individuals are observing for their own understanding and other cognitive activities, that is, beyond knowledge leads learners to choose, evaluate cognitive tasks, goals and strategies that can organize their learning, Individuals often make mistakes in the process

of learning as a result of their failure to do so, so the learner should benefit from the processes in determining his goals, which can organize his learning as he sees fit. (Abu Saud, 2009: 38)

The difference between knowledge and knowledge:

Table (1) Difference between knowledge and knowledge

Knowledge	beyond knowledge
Means having skills.	Means the ability of the learner to control and control these skills.
Are the skills to be used to perform the educational task (solving a problem, answering questions).	Is understanding and understanding of how performance occurs. Ie, how to perform an educational task, or how to solve a problem.
including cognition, understanding, remembering, etc.	Thinking involves an individual's perception, understanding and remembering, and this diverse knowledge can be classified as beyond perception, beyond understanding, and beyond memory.
Represents a part of the meta-knowledge.	Knowledge is a component of knowledge.
Is to acquire information or understand a principle.	Is to work to ensure verification of this and to self-question about the extent to which a goal has been achieved.

(Salah, 2017: 204)

The importance of knowledge:

1. Help learners understand what they know and what they do not know about the activities of the study and the task given.
2. Develop the ability of learners to design plans for their learning, implementation and follow-up of their achievement of their goals.
3. Transfer the ability to take responsibility from teachers to learners, and train them to self-learn.
4. To help learners develop their ability to review and organize their knowledge activities in the teaching and learning processes, as well as self-awareness, a condition for self-organization (Saadullah, 2014: 25)

Classification of knowledge skills:

Sternberg's Classification (1985) Sternberg classifies the skills of the knowledge base into three main skills (planning, monitoring, evaluation). Each of these skills includes a number of sub-skills that can be explained as follows:

Planning skills include the following skills: goal setting and problem perception, strategy selection, sequence of processes or steps, identification of obstacles or errors, identification of methods of coping with difficulties or errors, prediction of desired or expected outcomes.
2. The skill of monitoring or control: It includes the following skill: keeping the target in focus, maintaining the sequence of operations or steps, knowing when the sub-goal is achieved, knowing when to move to the next process, choosing the appropriate process in the context, , Learn how to overcome obstacles and get rid of.
Evaluation or evaluation skills include the following skills: assessing the extent to which the goal is achieved, judging the accuracy of the results, assessing the appropriateness of the methods used, evaluating the obstacles and errors, evaluating the plan's effectiveness and implementation. (Al-Ghurairi, 2007: 80)

Components of Metacognitive Skills: Metacognitive Components
Knowledge skills are divided into two main parts:
a. Self-awareness with knowledge.
B. Self-regulation of knowledge.
Details of the KM sections are shown below.

Component 1: Self-awareness with knowledge: This component includes three main types of knowledge:

Firstly. Conceptual knowledge: This knowledge includes several types of knowledge:
1. Awareness of concepts: This means knowledge of the learner concepts that deal with them, and its awareness of the components and the relationship of those concepts among them.
2. Awareness of terminology: It means understanding the meaning of scientific, social, sports or economic terms.
3. Awareness of symbols: It is meant to understand and understand the meaning of abstract symbols, and what it means if they come in a specific content, and whether these symbols are meaningful or not.
4. Awareness of laws: This means knowing the components of the laws, whether scientific or constitutional, administrative or other, and knowing the relationship of these laws to other relevant laws.

Second. Procedural knowledge: This knowledge includes several types of knowledge:
1. Understand the steps: The learner's knowledge of the steps he may follow in reaching the goal, or solving a mathematical issue, without referring to the solution or implementation of the plan to reach the goal, but knowl-

edge of something rather than implementation.
2. Knowledge of models: It is intended to recognize certain types of patterns and schemes that relate to a particular content through awareness of the steps of its formation or organization.
3. Knowledge of solutions: This knowledge refers to the methods of solving a specific problem or problem whether it is a matter of science or a specific social problem, as the learner here can understand the steps of the solution or method of dealing with the problem.

Third. Contextual knowledge: This knowledge includes:
1. Awareness of conditions: any understanding of the circumstances of learning a particular problem or giving conditions for a particular learning or behavior, as such behavior and this situation can not occur if there are no specific circumstances or conditions for its occurrence.
2. Understand the reasons: It means that the learner can understand a specific position only if he understands the specific reasons for the existence of something.
3. Giving justification: This means that the justification for the occurrence of a specific phenomenon, and to clarify the weaknesses and strength in that phenomenon or position, ie, explain why the learner was unable to resolve the issue.
4. Setting criteria: It is intended to establish criteria or units of measurement, for example, in order for an interaction to occur where there should be standards in its material to occur.
5. Problem Solving: It means understanding the problem or problem, whether stereotypical or non-stereotyped, and trying to solve it using a specific strategy. The problem is the problem that the learner has previously experienced and can use the steps of solving the same problem.
Component 2: Self-regulation of knowledge: This component includes three types of knowledge:

Firstly. Knowledge Consciousness: It includes the following:
1. Identify strategies: Any specific strategy selection that is useful and valuable for knowledge management and planning.
2. Development of plans: Knowledge management requires plans to implement a specific task.
3. Building steps: This level requires the formation of a set of steps arranged to accomplish a certain task.
4. Understanding the relationship: This means understanding the relationship between the different aspects of the position of knowledge, the learner can not be aware of the contents and relations between their concepts and

components.

5. Creating Conditions: In order for the task to be accomplished and masterminded, the appropriate conditions or climatic climate should be created to accomplish that task.

Second. Knowledge Calendar: This knowledge includes the following:

1. Modification pattern: This means that the learner adjusts the learning style or patterns of behavior he uses, and tries to change this pattern in the light of convincing arguments.

2. Switching strategy: Learner may see that the strategy used to achieve the goals were not useful in developing his ability to improve his skills towards a specific task or position, and resort to modify that strategy to more useful.

3. Improving the context: After the learner uses a certain method in the presentation of his ideas in a specific way, and finds that this method was not convincing or expressive resort to better re-contextualization using another method to put intellectual content to improve the context of the subject to become attractive or convincing.

4. Ensure the solution: This method is used by the learner to confirm the validity of a specific topic or idea or hypothesis, in order to give confidence in the steps used.

Third. Knowledge Management: This type of knowledge includes:

1. Re-plan: In light of the disclosure of strengths and weaknesses so that the learner can re-organization of the scheme or steps used in education or thinking, after he put his hand on the errors of failure to reach the desired goals.

2. Modification of outputs: The teacher can modify specific products through the feedback available in the classroom environment or by modifying itself.

3. Explanation of errors: This means explaining errors, how they occur, or where they occur. When will it happen? In order to fade and discard in his thinking or in the learning methods that he uses.

4. Work of processors: This means that immediate treatments of learning steps or types of thinking used in solving a scientific issue, for example, and is done through review and follow-up.

5. Organization of thinking: This level is the highest levels of knowledge, which means that the learner to organize his thinking from one period to another in a comprehensive manner, depending on the circumstances and conditions that go through. Figure 1 illustrates the components of the meta-knowledge skills.

(Afaneh and Khazandar, 2004: 135)
Stages of learning the skills of knowledge:
1. Determine what we know and what we do not know.
2. Keep thinking and self-organization in the diary (save the thinking log).
3. Talk about thinking.
4. Extract thinking processes.
5. Planning and self-organization.
6. Self-assessment.
The role of the teacher in the development of knowledge skills:
1. Helps learners to reflect their knowledge, what they want to do while studying the subject of learning, and what they have learned from the subject.
2. Encourage learners to meditate, identify their sources of learning, and the learning materials required for learning.
3. Helps learners to develop a sense of knowledge, by asking questions such as what do I know? What do not I know? And what do I need to know?
4. Train learners on how to learn more independently, and monitor their learning to ensure their progress.
(Abu Jado and Neufel, 356: 2007)
The role of the learner in the development of knowledge skills:
1. Participate in the solution of activities that help to achieve goals, identify obstacles to achieving the objectives, and identify the sources that support the achievement of the objectives.
2. Understand the strengths and weaknesses, learn the conditions of learning, self-assessment, learning methods, and express feelings independently in group activities.
3. Identify and develop new strategies to achieve learning objectives, and discover additional learning opportunities.
4. Defines learning goals, which include understanding goals, explaining personal goals and putting them to participate in the classroom.
(Qarni, 351: 2011)
Previous studies:
A study of Iksan, 2015 & Hiayat was conducted in Indonesia, aimed at identifying the effect of the actual education model towards the theoretical understanding of linear programming. The study sample consisted of (65) fourth grade students. The researcher prepared the conceptual assimilation test. And the results showed that the students of the experimental group who studied according to the model of the real education on the students of

the control group in the test studied according to the usual method.
The study was conducted in Palestine, aiming to identify the effect of the model of realistic knowledge in the modification of alternative perceptions and the trend towards science. The study sample consisted of (65) students from the ninth grade students. The researcher prepared a test for diagnosing alternative scenarios and the trend towards science , The researcher used the TAI test for two independent samples, the ETA box and the D equation. The results showed that the students of the experimental group who studied according to the actual education model were superior to the students of the control group in a test that was studied according to the usual method.
The study was conducted in Palestine, aimed at investigating the effectiveness of a training program based on the knowledge-based strategy for the development of the skills of knowledge. The study sample consisted of (20) female university students. The researcher prepared a measure of meta-knowledge skills. Pearson correlation and Black gain equation. The results indicated that there was a statistically significant difference between the mean scores of the two study groups in the Metacognitive Skills Scale for experimental benefit in the post-test,
Erdogan2017 study was conducted in Turkey, aimed at identifying the effect of collaborative learning method, reinforced by meta-knowledge strategies in the skills of knowledge. The study sample consisted of (101) students from the primary stage. The researcher prepared a test of the skills of the meta-knowledge. The results of the first experimental group showed that the students of the second experimental group and the control group in the skills test passed the second group. The students of the second experimental group also exceeded the control group students in the skills test. DONC knowledge.
Experimental Design:
The researcher used the semi-experimental design suitable for the research variables (semi-experimental design of the experimental and control groups) with the post-acquisition and post-metacognitive skills, because it is the appropriate design to achieve the research objectives. 2).

Table (2) Experimental design adopted in research

Group	Equivalence of the two groups	Independent variable	Dependent variable	Post-test
Experimental	-Metacognitive Skills Scale -The chronological age of months previous knowledge - Intelligence - Collecting parents	Realistic learning model	Metacognitive Skills Scale	Metacognitive Skills Scale
Control		Usual method		

Schema (2) Authorized experimental design

The research community and its sample: The current research community consists of middle secondary students in all middle and secondary government schools affiliated to the General Directorate of Education Baghdad, Rusafa the first year of the academic year (2018 - 2019).

The research sample consisted of (66) students who were chosen by Qusadia to represent the middle of the martyr Dr. Hassan Dhari Al Fayyad.

Control Procedures:

The variables of the search were determined by equivalence between the experimental and control groups in some variables (age, previous knowledge test in mathematics, intelligence test, previous achievement in mathematics) as shown in the table below

Table (3)

Statistical description of experimental and control groups in equivalence variables

Group	imental (30) student		ol (32) Student		alue		Freedom degree	Statistical significance at level (0.05)
Equivalence variables	Average arithmetic	Standard deviation	Average arithmetic	Standard deviation	Calculated	Table		
Chronological age	164.20	7.058	161.96	4.068	1.537		60	No significance
intelligence	15.50	6.682	14.63	6.24	0.538	2	60	No significance
Previous information	10.53	3.181	9.28	3.050	1.582	2	60	No significance

Search Tools:

1. Determination of the scientific material: The content of the educational material represented in the three chapters of the mathematics book was

determined for the second intermediate grade, i, 2017, and included the following geometry and measurement, geometrical geometry, statistics and probability.

2. Behavioral Purposes: After studying the content of the subject to be taught during the application of the experiment, 190 was formulated, a behavioral goal according to Bloom's classification of the cognitive field,

3. Preparation of study plans: In the light of the content of the subject to be taught and behavioral purposes, 36 daily plans were prepared for each group of research groups (experimental and control). The experimental group plans were organized according to the stages and steps of the actual education model. According to the usual method.

Search Tool:

(Strenberg, 1985: 132) in order to suit the characteristics of the scholastic and scientific stage, and the scientific material, the number of paragraphs reached (36) and divided into three areas, where the number of paragraphs of planning skill (12) and skill Control or control (14), and skill assessment (10).

The scale of the measure: To achieve the validity of the scale, the researcher adopted two indicators of their truth:

Virtual honesty: The scale was presented to a group of specialists in the field of educational and psychological sciences and methods of teaching mathematics, and the wording of some paragraphs was amended to become the final scale.

The validity of the construction (internal consistency): This type of honesty is achieved by finding the correlation between the relationship of the degree of the paragraph to the total degree of the scale, and it became clear that all the paragraphs are statistically significant, as all the correlation coefficients are greater than the scale (0.195), and the researcher found a link And the results showed that all the paragraphs were acceptable and statistically significant. All the values of the calculated correlation coefficients were greater than the absolute scale (0.195). The researcher also extracted the universal truth of the scale and found that all the values of the correlation coefficients were significant. (0,05) and the degree of Freedom (98).

Stability of the Gauge: The stability of the Maverick Skills Scale was computed using the Lava Kronbach equation, with the coefficient of measure stability (0.87). The researcher also used the method of retest method. The coefficient of stability was 0.85, which indicates that the scale is high Of stability.

Applying the experiment: The experiment began running on Tuesday

19/2/2019 and ended on Thursday, 5 September 2019.
Final Application of the Metacognitive Skills Scale: The scale was applied to the experimental and control groups on Thursday 9/5/2019. Students' responses were corrected according to the method of correction adopted in the research procedures.
Statistical Methods: The researcher used the TAS test for two independent samples, the Pearson correlation coefficient, and the Lava-Kronbach equation. The researcher used the statistical program Spss in analyzing the data.
View and interpret results
View results:
To verify the validity of the null hypothesis, there is no statistically significant difference at the mean level (0.05) among the average scores of the experimental group who study according to the actual education model and the average grade of the control group students who study according to the standard method in the skills skills level.

The students' grades were calculated in the Metacognitive Skills Scale. The statistical results showed that there was a statistically significant difference between the mean scores of the KMT scores between the experimental and control groups as shown in Table (). The calculated T value (6.614), which is greater than the scale value of (2) at the level of significance (0.05) and the degree of freedom (60). This means that the difference between the two groups is statistically significant for the experimental group and therefore rejects the first zero hypothesis. This result indicates the superiority of the experimental group using the real education model on the control group Which is taught According to the standard method in the Metacognitive Skills Scale as shown in Table (4).

The results of the T-test of the difference between the mean scores of the two sets of research in the Metacognitive Skills Scale

Group	Sample	Arithmetic mean	Standard deviation	Freedom degree	T- value		Statistical significance at level (0.05)
					Calculated	Tab	
Experimental	30	84.70	7.594	60	6.614	2	Statistical significance
Control	32	71.50	8.088				

Table (4) shows that the calculated T value is greater than the numerical value of (2) at the level of significance (0.05) and the degree of freedom (60). This means that the difference between the two groups is statistically significant for the experimental group. The result shows the superiority of the experimental group that is taught using the real-life learning model on the control group that is taught according to the standard method in the Metacognitive Skills Scale.

The results of this study are consistent with the findings of the study of Al-Khafaji, Al-Shammari, 2014, Jad Al-Haq, 2007, and Abu Daqqa, 2017, The realists on the control group students studied according to the usual method and for multiple variables.

Conclusions:

1. Teaching the real-life learning model has had a positive effect on second-graders' average use of skills (planning, monitoring, control, assessment, or evaluation).
2. Develop some of the students' mental skills as knowledge skills (planning, observation, control, evaluation or evaluation) by doing many activities, making learning meaningful.

Recommendations:

1. Provide the libraries with a scale of knowledge skills that the research has built, after verifying the signs of sincerity and stability.
2. Paying attention to the use of modern learning models that help to develop and improve the skills of thinking in general and the skills of knowledge in particular among learners.
3. The need to provide planning and curriculum development in the Ministry of Education with the results of the current research to take this into consideration during design.
4. Training learners to discuss and dialogue among themselves and with their teachers, and put ideas and conclusions even if they are wrong and support the spirit of collective participation in the classroom.

Proposals:

In order to complete this research, the researcher proposes the following studies:

1. Conduct similar studies of current research with other variables such as (acquisition and retention of mathematical concepts, modification of misconception of mathematical concepts, levels of mathematical understanding, concern of mathematics, development of scientific thinking.
2. A comparative study between the model of realistic education and another model does not support structural philosophy.

3. Conduct research and studies similar to the current research to see the extent of ownership of students in different stages of learning skills of knowledge.
4. Include textbooks in a number of targeted activities that develop the skills of knowledge.

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