International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 06, 2020
ISSN: 1475-7192

The effectiveness of three models ((Gest _, Trajest_, Eddie and Shire)) in achieving geography subjects for fourth literary students

[1]Dr. ALI MOHAN ABBOOD, [2]Dr. AL-HARETH SHAKIR ABD

***Abstract*---*The current study is clear from the knowledge of the effectiveness of three teaching models (Guest), (Trajest) and (Structural Learning) in achieving geography for fourth literary students, by verifying the validity of the following zero hypothesis ((There is no statistically significant difference when Level (0,05) between the average scores of students of the three experimental groups, the first experimental group that studies the course of geographic foundations and their techniques in the (GST) model, the second experimental group that studies with the Trajest model, and the third experimental group that studies the same subject with the (constructive learning) model in the achievement test Al-Baaddi)) Heading for the fourth literary students in the Directorate of Education in the province of Baghdad, the second Rusafa for the academic year 2018/2019, by teaching the first, second and third semester of geographic foundations and their techniques, the study sample reached (69) students distributed over three divisions of three experimental groups, the researchers followed the research method The experimental tool was the study of the post-achievement test, whose paragraphs were prepared from a multiple choice type and reached (40) test items after the validity of the tool was extracted by the experts and the stability of the tool in the Fakronbach equation. The statistical package for social sciences (spss) was used to extract the results For the study, the results of the current study showed that the three teaching models are effective in increasing the level of academic achievement compared to their academic achievement before conducting the experiment, and that these three teaching models help fourth literary students reach themselves to levels of knowledge, understanding, and application, as well as levels of analysis, composition, and evaluation, and in In light of the results of the current study, the researchers recommend adopting modern teaching models, especially the GST model, the Trajest model, and the constructive learning model in teaching subjects of geographic foundations and their techniques in fourth-grade literary students, and informing teachers of a Use geography and its techniques on the steps of these teaching models to use when teaching their subjects.*

***Keywords*---** *spss, Trajest model, Fakronbach equation*

I Introduction

"Teaching models are a type of modern teaching methods and strategies that work on the positivity of the student and reduce the burden on teachers of the subject in general and teachers of geography in particular, but this does not mean our neglect of other types of methods, strategies and teaching models, educational models are entries and steps The educational stages are organized according to educational goals dedicated to facilitating the educational process in terms of its design, but they differ at the same time from the characteristics of other

[1] *college of education, University of Mustansiriyah, Department of Psychological and ducational Sciences*
[2] *college of education, University of Mustansiriyah, Department of Psychological and ducational Sciences*

teaching strategies, as the teaching models are characterized by harmony and interdependence, and principles The reaction, the teaching models from theories that are derived to theoretical knowledge, and related to the nature of psychological characteristics of students, and the principles and laws that control the education process as well as opinions and reflections, it is characterized by a guiding nature through its proposal for a set of rules that work to achieve better achievement of the field of information and skills Among both subject teachers and students, the teaching models are characterized as a structural design that works to define environmental situations that help students to have a positive interaction with the experience available to them in the class environment in order to bring about the changes required in the basket As for them, the teaching paradigms have become parallel to the developments and discoveries that have occurred throughout the various years in the field of education and cognitive psychology. Educational literature at the beginning of the seventies of the twentieth century indicates that the first textbook developed by the educational author Bruce Joyce in which he emphasized the significant increase In the number of teaching paradigms and the expansion in them, so that most of the teaching paradigms target a specific goal or group of goals set by the individual or group that prepares this goal, they are promised for an increase in the level of achievement, and daily organized educational steps in order to bring about change in the Educational learning process."

Previous studies: The researchers did not find studies that dealt with these teaching models individually or together in the specialization of geography teaching methods, and the scientific research method requires that previous studies be within the specific jurisdiction of when writing the researcher for a specific study, but that these studies fall within the researcher's specific specialty, and therefore it is considered The current study, according to the researchers 'knowledge, is the first local study that examined three experimental teaching models without introducing a control group into the current study experience in the field of geography teaching methods.

The problem of the study: Despite the educational progress made in the field of teaching methods in general and the methods of teaching geography in particular, the teaching methods followed by some teachers of geography do not meet the aspiration in the academic stages in general and the preparatory stage in particular, they need to be developed through effective research Modern teaching models. These teaching models may have tangible effectiveness in keeping pace with scientific progress and achieving the desired educational goals in increasing academic achievement, and through the researchers 'review of some previous studies that have been researched in the field of geography teaching methods, they found in the results of August He urged them when inquiring to her that there is a clear superiority for the students of the experimental group that studied the subject of geography with modern teaching models and strategies over the students of the control group that were studied according to the traditional method, and this is an indication that must be stopped and paid attention to by the researchers, and the researchers made sure of this problem themselves on the ground through their meeting A number of geography subject teachers in the preparatory stage in general and teachers of geography basics and their techniques taught to students of the literary quarter in particular and asking some questions and inquiring about the teaching methods they follow in teaching geography in the preparatory stage In general, fourth-grade literary students who study the subject of geographic basics and its techniques in particular, it turns out that (80%) of the subject's teachers prefer the traditional method when teaching geographic subjects that they consider, as they see it as easier than the methods, strategies and other teaching models, and after reviewing the

grading records, the researchers found There is a clear decline in the level of achievement of the fourth literary students in the subject of geography for the years (2017-2018), and accordingly, the researchers felt that there is a problem in the weakness of the level of academic achievement, which prepares the adoption of modern teaching models to advance the subject of geography and its topics, through experimenting The knowledge of its effectiveness in the collection, and it crystallized the current study the problem by asking the following: "Do models (Geist) and (Trajast) and (learning constructivist) effectiveness in the collection of geographical material in the fourth literary students.

II The importance of studying :

First: Theoretical importance of the current study:

1- Gist Template: It is called a Gist template, which is a form to summarize the content of the text read in twenty words or less, which includes words or question keys, each of which represents one of the fields that the reader's mind should deviate to search for what belongs to it or classify There are ideas in the text and these words are: (from, what, when, where, why, how) that you express with 5w and H because the first five of them start with the letter W and the last one begins with the letter H and is respectively who, what, when, where and why How is a model used to summarize topics that allows a student to absorb learning content and store it in memory in a way that provides large storage space Considering that he seeks to occupy the memory with the basic issues mentioned in the text that, when summoned, can enable him to give a picture of it and related ideas, and that is by molding the meanings of the text and its ideas in the form or template referred to first, and then expressing them collectively with no more than twenty A word to retain and thus be the perfect way to accommodate a large learning content by merely squeezing it in twenty words that he formulates in his own style and language and did not receive from others, and the effectiveness of this method in understanding the reciter and its absorption did not come from the simple summarization but rather through the focused reading, analysis of texts and focusing on only Carre and formulate it in a concentrated form in the student's language and write it in the form of notes under each of the fields included in the GST model and then reduce it to twenty words or less. Verbal form of the student is characterized by its small and easy to memorize and store in long-term memory and easy to recall. (Atiyah, 2018: 204)

But we must ask how can students master this mission of analytical and critical dimensions and squeeze many meanings into a few words? Is it sufficient for the student to design a Gest model in a paper to be able to achieve the goals of this method of analyzing and absorbing texts and extracting their ideas and concepts in a limited number of words? To train students in the use of the Gest method is to read texts in newspapers and websites and analyze their ideas in light of the Gest model with six areas so that the student reads the electronic text carefully and analytically reading aimed at sorting out more ideas and expressing them in the reader's language in the fields They belong to it in the JST model, then students work in small cooperative groups to discuss what they have come up with by sorting ideas between areas of the model and exchanging ideas and summaries that they formulated according to working in this way, relying on this model to sort out ideas and write concentrated abstracts in a form called a JST template, and when a template is prepared A guest from the subject teacher can include it at the top explaining the importance of the model in helping the student find the main idea or ideas in the text with the necessity of reducing the number of vocabulary text to be in a specified

number of words and it helps the student to focus on the ideas included in the text as well Regarding the inclusion of the template, it refers to writing the student's name, subject and page, then instructing the student to read the text and then fill out the six fields with ideas that belong to them. In sum, the GEST model enables students to absorb the main reciter with less effort and a shorter time if students are trained to use it adequately . (Atiyah, 2018: 205)

Training plan and procedures according to the Guest Model:

- Carry out an inventory of online newspaper sites in a list distributed by the teacher among students, with the possibility of using local newspapers or even external articles of interest to students.
- Teaching students how to access these sites and how to use search tools for them.
- The teacher selects and browses samples from these sites in front of students and selects a sample of news articles from them for application.
- The teacher prints a GEST template with copies covering the number of students, distributing them among students, explaining instructions for using it, and how to fill out fields
- Displaying the selected article or text in light of what responds to the students 'interests after instructing to enter a website and access the article or news, and read it carefully, analyze and summarize it according to the Geest model under the supervision of the subject teacher and its evaluation.
- Review students 'work from the teacher and evaluate their performance at work.
- In the second session, the students are distributed among small cooperative groups that exchange information between their members and choose another article or topic of topics that interest students and read it carefully and critically read by each individual in the group and fill out the fields of the GST model with its summary and then exchange what is reached Students of the group of ideas and summaries and discussed under the supervision of the subject teacher.
- Discuss the content of the Gest template from the notes and the summary between the students of the two groups and exchange views between them.
- Participation of the groups in their findings, discussion of their summary, evaluation of work by all, evaluation of groups' performance, and students from the teacher, stating directions and providing feedback. (Rhoder, 2002:43)

2- Tragist Model: A model developed by the Australian scientist (Treagust 1993) that relies on analogies and defines them as "the process of identifying and identifying similarities between concepts" and distinguishes them with two types of concepts. The scientific to be clarified is known as (the target or similar) and the suspect is from the students 'life so that they can absorb the analogy process, as each of the target (the similar) and the analogous have two characteristics that are shared between them, but at the same time they bear non-common characteristics. (Abu Saidi and Suleiman, 2009: 569)

Teaching steps on the Treagust model

The step	Clarification
First: focus includes	
Understood	Is it difficult, or just, or unfamiliar?
Students	What information do students know about the concept?
Simile	What do students know about something similar in some of the attributes you are studying?

Secondly: Action includes	
The similar is different	What are the similarities between the scientific concept and the like, write it on the blackboard?
	What are the differences between the scientific concept and the like and write it on the board?
	Third: Reflection: It includes
Outputs the improvement	Is the analogy clear and useful and does not lead to ambiguity and dispersion?
	Emphasis on the above, giving various examples of the concept.

(Abu Saidi and Suleiman, 2009: 569)

3- The Eddie and Shire model: The Eddie and Shire model is one of the models that were designed to develop thinking skills and accelerate the cognitive development of learners through their transition from the sensory stage to the stage of abstract thinking at an early date, and it is one of the most important models that have proven effective in classroom teaching and also called the strategy of cognitive acceleration, This project was designed to solve the problem of difficulty in learning concepts by Michael Shire and Philip Eddy (1994, Adey and shyer) in Britain based on the constructivist theory of Piaget and sociocultural culture of Vygotsky. This project is known as the "case" program and the name is derived from a project title which means: ((Cognitive Acceleration Science Edu cation((

III Teaching steps in the Eddy and Shire model:

1- Sensory preparation: where the teacher clarifies basic ideas and concepts, and making sure students know them, as this helps them in knowing the nature of the work or activity that they will do. This stage is concerned with the self-development and social construction of the student through exchanging and sharing information and concepts between them and the study materials. (Moroccan, 2006: 17)

2- Mental conflict or (cognitive contradiction): It is a conflict or contradiction between two concepts of one concept, one prior to the cognitive structure and the other is new, and this occurs when the student falls under the influence of concepts, situations or observations that are surprising to him, as they are inconsistent with his expectations or previous experiences And the result of this surprises generates a state of wonder and surprise that calls upon the student to reconsider the cognitive structure, and this contradiction is resolved when the student realizes the error of the conception that he had and accepts to solve it enthusiastically and eagerly to solve the problem of contradiction facing the learner, and that this conflict leads to the acquisition of new concepts . (Al-Rayyan, 2012: 28)

3- Thinking in thinking: It is meant by the individual thinking in his thinking (that is, the individual thinking in the thinking that he did in order to solve a problem or question) i.e. his awareness and his awareness of what he is doing and what he says and thinking about the reasons that led to thinking about the problem through the questions posed by the teacher Like (Why did you think about that? Do you explain why I thought about this solution? When the student realizes the meaning of what he says and what he does and why he thinks in this way) Through this the learners realize the type of thinking that he used to solve the problem and this leads to accelerating the growth of thinking skills and thus increasing Their growth knowledge. (Youssef, 2011: 255)

4- - Building or forming concepts: The learner must build knowledge self, and it must be provided with the appropriate means and opportunities to do so, not only in the stage of extracting concepts, digesting and forming

them to be perceived by students, but building patterns and rules for this reasoning in order to find solutions to problems. (22, 2000: Adey)

5- Bridging: It is intended to link the experiences gained by the student in the lesson with the experiences in practical life, that is, to use the method of thinking and strategy in another position on the same topic and then move to use the same method of thinking skill in different life affairs, i.e. building intellectual bridges between activities and life The process is necessary to produce the experiences students learned during the lesson from the theoretical framework to the practical framework. (Zayer, 2014: 519)

IV Second: The applied importance of the current study:

1- The importance of geography as it has an important role in the students 'knowledge of the environment in which they live and developing their abilities to observe some natural and human phenomena and provide information and correct ideas about students' interaction with their natural environment and increase their affiliation.

2- The importance of the preparatory stage as the academic stage in which the student moves from to other academic stages.

3- The benefit of those in charge of preparing geography teachers and following up their performance by supervisors of specialization from the teaching plans developed by the researcher to teach geography with the three teaching models.

4 The study can be counted from studies that were conducted in response to the recommendations of many previous local studies and conferences that advocated the need for rapid development of teaching methods and the introduction of modern models in teaching.

5- The present study may open the way for research and other studies dealing with other dependent variables.

Study questions: The current study is clear from the knowledge of the effectiveness of three teaching models (Guest), (Trajest) and (Structural Learning) in achieving the topics of geographic foundations and their techniques for the fourth literary students, by verifying the validity of the following zero hypothesis ((there is no A statistically significant difference at the level (0,05) between the average scores of students of the three experimental groups, the first experimental group that studies the subject of geographic foundations and their techniques in the (GST) model, the second experimental group that studies in the trajest model, and the third experimental group that studies the same subject in the (learning) model Constructive) F. Achievement test posttest))

V The limits of the study :

A - Human Frontiers: fourth-grade literary students.

B - Spatial boundaries: Directorate of Education, Baghdad Governorate, the second Rusafa.

C- Time limits: The academic year 2018/2019.

D- The determinants of the study: Teaching the first, second and third semester of the geographic basics and its techniques

Definition of study terms:

Efficacy: defined by (Yeger, 1991) "the ability to achieve positive results represented in a high degree of efficiency and control and evaluation of results." (yeger, 1991, p79)

Procedural definition: The ability of intermediate second students to receive geographical information and their interaction with it and with the subject teacher.

Teaching Models: Arafa (Collector, 2010) "An orientation plan that adopts a specific learning theory to achieve a set of educational outcomes, procedures and pre-activities that facilitate the teacher in the process of planning teaching activities at the level of objectives, implementation and evaluation." (Collected, 2010: 209)

Procedural definition: Specific teaching plans with the goal of achieving a set of educational outcomes to facilitate the course teacher to give information to students.

Achievement: He knew (Allam, 2007) "the degree of acquisition achieved by the student, or the level of success that he attains, or reaches in a specific subject, or educational or training field" (Allam, 2007: 122)

Procedural definition: The amount of geographic information for students of the research sample, measured by the grades that they obtain in the post-achievement test.

Geography: Define it (Rashaida, 2006) "A study of the Earth's surface as a habitat for humans and the relations of influence and influence between them, that is, a study of the relationships between living and non-living nature." (Rashaida, 2006: 24)

The study population and its sample: The study population reached (90) a preparatory school for boys, and the study sample was randomly selected (Al-Wathba Preparatory School for Boys), as the number of students in the fourth literary class in this school reached (73) students, distributed among three people comprising Division (A) 25 students and the Division (B) 23 students and Division (c) 25 students, and the method of random withdrawal was adopted, whereby Division (b) was chosen to represent the first experimental group and Division (a) represents the second experimental group, and the division (c) represents the third experimental group, and (4) was excluded Of the students of experimental groups who failed from last year, the final sample (69 students) became distributed as number of K. What is in Table (1).

Table (1)

Number of students in the experimental group and control before and after exclusion

The group	Section	Number of students before exclusion	Number of excluded students	number of students after exclusion
1st experimental group	B	23	1	22
1st experimental group	A	25	2	23
1st experimental group	D	25	1	24
The total		73	4	70

Study Tool: Achievement Test: The two researchers prepared the test items of type (multiple choice) consisting of (40) paragraphs, and the researchers followed the steps of preparing the test by preparing a specification table of behavioral goals and achievement test paragraphs, and table (2) shows that.

Received: 27 Feb 2019 | Revised: 20 Mar 2019 | Accepted: 30 Apr 2020

Table (2)

Test map (specification table) for achievement test scores and behavioral goals specifications shows that:

Number of items for the test	Number of items						Total number	Number of behavioral goals						Relativity humidity	Number of papers	Number of chapters	
	Evaluation	Composition	Analysis	Application	Understandi	Knowledge		Evaluation	Composition	Analysis	Application	Understandi ng	Knowledge				
19	2	3	2	2	5	5	59	5	7	6	5	17	19	50%	30	1st	1
10	1	1	1	1	2	3	33	4	4	4	3	7	11	23%	14	2nd	2
11	1	1	1	1	3	4	40	4	5	4	5	10	12	27%	16	3RD	3
40	4	5	4	4	10	31	132	13	16	14	13	34	42	100 %	60	Total	

Verification of achievement test paragraphs: The test was presented to a group of experts in the field of teaching geography methods and specialists in the field of measurement and evaluation, and the paragraphs that obtained an agreement rate (80%) or more were adopted as the standard for the accepted paragraph, and after examining the achievement test paragraphs by expert professors it was found that All the paragraphs are acceptable, as it obtained an agreement percentage (100%).

Stability of the achievement test items: The stability of the test items were verified by the Elfa Kronbach equation, so his (86, 0) coefficient was a good and reliable dependency factor as perceived by the measurement and evaluation specialists.

Statistical treatment of the current study: The researchers used the Statistical Package for Social Sciences (spss) to extract the results.

VI The results of the study

The null hypothesis stated that ((there is no statistically significant difference at the level of (0.05) between the average scores of students of the three experimental groups, the first experimental group that studies the subject of geographic basics and their techniques in the (GST) model) and the second experimental group that is taught with the trajist model) (And the third experimental group that studies the same subject as a model (Adi and Shire) in the test of post achievement)) For this purpose, the researchers used a mono-variance analysis to find out the significance of the differences between the results of the three study groups in the post achievement test, where the calculated value value reached (59) and when compared There is a tabular value of (3.2) extracted with a degree of freedom (2, 66) at a level of significance (0.05) that is greater than the tabular value, which indicates the presence of a statistically significant difference between the three groups in the post achievement achievement, and table (3) shows that.

table (3)

. Analysis of the mono-variance between the three research groups in the post-achievement test

Variance Source	Total of Sqs.	Freedom degree	Squares Mean	Calculated value of F	Scheduled value F	Indication
Between groups	261	2	131	54	3.02	0.05
Inside the groups	146	66	21			

Since the analysis of mono-variance does not determine which of the three research groups differed in their arithmetic averages, the researchers used a (Chevy) test for two-dimensional comparisons to find the differences between the averages of the three experimental study groups in the sections of the post-achievement test, and Table (4) shows that.

Table (4)

The level of significance or differences between the mean scores of the three research groups in the collection test using the Schiff method:

Statistic function at level 0.05	Schiff value	Differences	Rats	Groups
Function	2.5	5	21	1st experimental group
			16	2nd experimental group
Function	2.4	2.5	21	1st experimental group
			18.5	3nd experimental group
Function	2.4	2.5	61	2nd experimental group
			18.5	3nd experimental group

The first comparison: (the first experimental group and the second experimental group): The test showed that the average scores for the first experimental group that were studied according to the GST model were (21) and the mean scores for the second experimental group that were studied using the Trajest model were (16), and when testing the morale of the difference Between the averages of the two experimental groups using the (Chevy) test, it appeared that the difference between them was statistically significant at the level (0.05) and in favor of the first experimental group that was studied in the GST model. The calculated value of the difference between the two averages was (5), which is greater than the value of Chevy which was (2.5).

The second comparison: (the first experimental group and the third experimental group): The test showed that the average score for the first experimental group that was studied on the GST model was (21) and the average score for the third experimental group that was studied according to the constructive learning model was (18.5), and when a morale test The difference between the averages of the two experimental groups using the Chevy test showed that the difference between them was statistically significant at the level (0.05) and in favor of the first experimental group that was studied using the GEST model. As the calculated value of the difference between the two media was (2.5), which is greater than the value of Chevy of (2.4).

The third comparison: (the second experimental group and the third experimental group): The test showed that the average scores for the second experimental group that were studied according to the Trajest model (16) and the average score for the third experimental group that was studied with the constructive learning model amounted to (18.5) and when testing the significance of the difference between the average The degrees of the two experimental groups showed that the difference between them is statistically significant at the level of (0.05), as the calculated value of the difference between the two averages reached (2.5), as it was found that the calculated value is greater than the value of Chevia of (2.4) because of the difference of statistically significant and in favor of the second experimental group that Trajest model worked.

The effect size of the independent variables on the dependent variable:

Table (5)

The magnitude of the effect of the independent variable (the first is the GST model), (the second trajectory), and (the third constructivist learning) on the dependent variable (achievement) according to Cohen's criteria

mpact criterion	Effect size	Sample volume	Type of test	Independent variable
high	0.6	69	**Post achievement test**	Guest Model
high	0.6			Trajest Model
high	0.5			Eddy and Shayer's model

VII Discussion of the results:

In light of the results of the current study, it was found that the three teaching models are effective in increasing the level of academic achievement, as the current study results have brought, and that these teaching models help fourth literary students reach themselves to levels of knowledge, understanding and application, as well as levels of analysis and syntax And evaluation, and their application to fourth-graders of the literary level, especially in teaching subjects of geographic basics and their techniques, have helped students to increase their level of academic achievement, because subjects of geography basics and their techniques are subjects of study that are characterized by abundance Branching and correlation between its subjects, and after analyzing the results, it became clear that the students excelled in the achievement test, and this may be due to one or more reasons, as it benefited the three study groups, and this is evident by increasing the average degrees of their achievement, because the diversity of teaching procedures included in the three teaching models spent On the routine procedures that are boring in the regular lessons, and attract the attention of students and urge them to communicate and follow up on what is presented to them in the lesson class, and that the students were the focus of the educational process, and their impact on the class is an active positive and the teaching procedures in them requires them to pay attention and focus because they are prolonged The length of the lesson portion is by following-up and deducing the causes and causes, and this urges them to think to find solutions to the issues presented to them by classification, and to prepare logical solutions for the reasons for inclusion of the examples

that are presented to them under the category of affiliation, and belonging, and that starting the study session by mentioning the behavioral goals of the subject is a factor It is important in the acquisition of knowledge, and this has been confirmed by many studies that dealt with the behavioral goals by research and experimentation, and that the use of the method of displaying examples and examples is one of the beneficial measures in raising the level of student achievement, and this clearly shows that teaching with teaching models in general and development Zj teaching of Bonmozj Geist and specimen Trajast Valley and the specimen may shire easy topics material basis of geography and technology students at the fourth grade literary, show that by increasing the level of student achievement in this article and their interaction with the teacher the same article and article.

VIII Recommendations:

In light of the results of the current study, the researchers recommend adopting teaching models, especially the GST model, the Trajest model, and the structural learning model in teaching subjects of geographic foundations and their techniques, and informing the teachers of the material on the steps of these models for their use when teaching subject subjects, and the need for educators to stress the importance of these teaching models to subject teachers Geography in the preparatory stage during their visits and supervision of them, as well as the necessity for teachers of geography subject to master's theses and doctoral dissertations in the central libraries at the university, especially with regard to letters and theses concerning Methods of teaching geography.

REFERENCES

1. Abu Saidi, Abdullah bin Khamis and Suleiman bin Muhammad Al Balushi (2009): "Methods of Teaching Sciences", 1st floor, Dar Al Masirah, Amman.
2. Adey, P., & Shayer, M. (1994): Really Raising Standards cognitive interventio academic achievement. London: Routledgen.
3. Adey, P., Robertson, A., & Venville, G. (2002): Effects of a cognitive stimulation program on Year 1 pupils. British Journal of Educational Psychology, 72, 1-25.
4. Allam, Salah Al-Din Mahmoud (2007): Educational and psychological tests and standards, 1st floor, Dar Al-Fikr for Publishing and Distribution, Amman, Jordan.
5. Al-Rashaideh, Muhammad Sobeih, (2006): Educational competence to read the map in social studies, 1st floor, Jaffa House, Amman, Jordan
6. Al-Rayyan, Muhammad Hashem (2012): Teaching Strategies for the Development of Thinking, 2nd floor, Dar Hanin, Publishing and Distribution, Amman.
7. Attia, Mohsen Ali (2018): active learning, modern strategies and methods in teaching, first edition, Dar Al-Shorouk for Publishing and Distribution, Amman, Jordan.
8. Jameh, Hasan (2010): Education Design, First Edition, Dar Al-Fikr, Amman, Jordan.
9. Moroccan, Nabil Amin Hassan (2006): The effect of the project to accelerate mental thinking on some cognitive and emotional variables among students of the upper basic stage in Palestine (unpublished doctoral thesis), League of Arab States, the Arab Organization for Education, Science and Culture and Arab Studies, Department of Educational Studies, Cairo .
10. Rhoder, C. (2002): from Theory to practice. mindful reading: strategy training tgat facilitates transfer,

Journla of Adolescent & Adult Litaracy, 45, 498 - 512.

11. Yager, Robert, E. (1991): The Constructivist Learning Model, Science teacher ,.
12. Youssef, Salman Abdul Wahid (2011): Individual Differences in Cognitive Mental Processes, Dar Al-Masirah, Amman, Jordan.
13. Zayer, Saad Ali and others (2014): Contemporary Educational Encyclopedia, 2nd Edition, Nour Al-Hussein Library. For publication and distribution, Baghdad, Iraq