



The effect of your questions and my answers strategy on the achievement of students of the Faculty of Education in the course of methods of teaching Arabic and thinking outside the box for them

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ABSTRACT

The research aims to identify the impact of the strategy of your questions and my answers on the achievement of the students of the College of Education in the course of teaching methods of Arabic language and thinking outside the box for them. Her students are (37) male and female students, and in a random drawing method, the researcher chose (third stage students / Department of Arabic Language / College of Basic Education / University of Babylon). (Academic achievement, thinking outside the box), as the researcher chose the experimental design to control the research variables. out of the box), and after making the equivalence between the two research groups, the researcher prepared the requirements of the application of plans, objectives and tests for the two research groups, and after completing the application of the experiment. b The researcher applied her research tools to the two research groups, to obtain the final results by treating those data statistically by means of a t-test for two independent samples.

Keywords:

Your questions and answers strategy, academic achievement, thinking outside the box, third stage students, teaching methods.

Chapter One: Introduction to Research

First, the research problem:

Since teaching methods are the downstream of all education sciences, and education sciences by their nature; It must have an applied appearance; Therefore, teaching is the focus in which the lights of the various educational sciences gather, and teaching is the executive aspect in the educational process that transfers knowledge and students gain information and helps them develop integrated in all aspects (cognitive, skill, and emotional) according to their preparations and abilities, and teaching is not just establishing the knowledge background. For the student, it is a productive, humane and social process through which the desired values and trends are instilled in the students' behavior and needs a person to

practice it in a successful way who plans, implements, implements and follows all that is new in the field of the educational process in terms of modern strategies and methods (Al-Halfi and Najd, 2019: 23).

(Al-Khafaji et al., 2019) emphasized that teaching methods is one of the basic and important subjects in faculties of education, which contains a lot of vocabulary that is difficult to understand if presented in the abstract, and that the process of teaching this subject currently needs development and improvement, and it is still a reality. This process is traditional, and the use of modern strategies in teaching students develops their level of academic achievement (Al-Khafaji et al., 2019: 54).

and this is only through active learning (Ambo Saidi and Hoda, 2016: 24).

Among these strategies, which emphasize that the student builds his information internally, influenced by the surrounding environment and society, and that each student has a method and privacy in understanding information and building it in his knowledge environment. A person has his own knowledge that he possesses, and that the student knows himself either individually or collectively based on his current knowledge and previous experiences, and this is only through active learning (Ambo Saidi and Hoda, 2016: 24).

Active learning strategies are among the strategies that emphasize the importance of students building their knowledge through their interaction with their environment, and to implement active learning, it is necessary to diversify its methods and strategies. It increases students' motivation and their education and positively affects their attention, and makes students more receptive to learning, so diversification of strategies is the key to enhancing learning (Atiya, 2018: 23), and among the active learning strategies is your questions and answers strategy, as this strategy is based on empowering students with mental skills The knowledge that helps and makes the student the focus of the educational process and its goal, as the student identifies his questions about the educational material and reaches the answer to his questions and his colleagues based on his information, and the goal of this strategy is to help the student acquire thinking skills outside the box that he is exposed to in his lessons, so this strategy enables The student can analyze the problem he faces and think about it in all directions and from all angles To reach the best and proper solution to it, and this leads to increasing his capabilities and raising his academic achievement (Al-Saadi, 2020: 150).

Recently, researchers have been interested in knowing the factors that can affect the achievement of students at various educational levels, as several studies were conducted to find out the relationship between academic achievement and other variables, perhaps foremost of which is thinking outside the box, as thinking outside the box is one of the patterns of

thinking, and it is related to In the world, Edward Debono, who invented the term thinking outside the box, which means searching to solve problems by unconventional or illogical methods and clearly (Abdul-Jabari, 91:2021), and he named it by this name to distinguish it from another type of thinking called vertical thinking, which is mainly attributed to logic. Or what people are familiar with, and De Bono considered thinking outside the box a special mode of information processing, and it must take its way along with other methods of collecting information (Divaya, 18: 2020).

Based on the foregoing ideas and proposals represented in educational knowledge, the researcher believes that it is necessary to provide modern teaching strategies and methods that take into account the role of students instead of relying on the professor only in order to increase their academic achievement and their thinking outside the box. University, because this stage is one of the important stages in the life of students, because students at this stage have a degree of mental and cognitive maturity, in which their thinking grows, their intelligence increases, and their experiences expand, changing them from their state described as simplicity and ambiguity of purpose to a state in which self-confidence and fertility expand, and the connection with mental aspects It is also considered an important stage in the university student's life because it is the basis from which the student chooses his future career.

Through the foregoing, the importance of the research is evident in the following:

- 1)** The scarcity of local and Arabic research and studies (to the knowledge of the researcher) that dealt with the impact of your questions and answers strategy on the achievement of students of the College of Education in the course of methods of teaching Arabic and thinking outside the box for them.
- 2)** The importance of teaching methods in enabling the teacher to carry out his educational duty to achieve specific goals.
- 3)** The importance of thinking outside the box in helping students to make correct decisions in their lives and reach useful results.

4) The importance of the university stage as a stage of maturity in thinking and preparing the student in all directions.

Third: The aim and hypotheses of the research:

1) There is no statistically significant difference at the significance level (0.05) between the average scores of the experimental group students who will study the teaching methods subject according to your questions and my information strategy and the average scores of the control group students who will study the same subject according to the usual method in the academic achievement test prepared for the purposes of this research. .

2) There is no statistically significant difference at the level of significance (0.05) between the average scores of the experimental group students who will study the teaching methods subject according to the strategy of your questions and my information and the average scores of the control group students who will study the same subject according to the usual method in the out-of-the-box thinking test prepared for the purposes of this search.

Fourth: Research Limits:

The current search is defined as:

1) Spatial boundaries: College of Basic Education / University of Babylon.

2) Time limits: the first semester of the academic year (2021-2022) AD.

3) Human Boundaries: Third stage students, Arabic Language Department, College of Basic Education, Babylon University.

4) Cognitive limits: Vocabulary of the methods of teaching Arabic course.

Fifth: Defining Terms:

1) The effect is defined by:

(Al-Sharifi, 2021) as: "the set of knowledge and skills acquired and developed during the study subjects, which are usually indicated by test scores or grades assigned by teachers, or both" (Al-Sharifi, 2021: 32).

The researcher defines it procedurally as: the amount of change that your questions and answers strategy makes in the learning outcomes of the students of the College of Education / Department of Arabic Language in the subject of teaching methods, and it is

measured by one of the appropriate statistical means to identify the increase or decrease in their average grades in academic achievement.

2) Know your questions and answers strategy

(Al-Saadi, 2021) as: "students' ability to derive their questions from the educational material and arrive at answering his questions and those of his colleagues based on his information" (Al-Saadi, 2021: 88).

The researcher defines it procedurally as: Teaching topics related to the vocabulary of the teaching methods subject, by following her steps: (The student prepares the lesson material with typical questions and answers, the professor provides a simplified explanation of the topic, the professor asks a question about the topic, the students submit their questions in turn, the professor discusses with the students what reached it).

3) Thinking outside the box was defined by:

(Abdul-Jabari, 2021) that: "Thinking is characterized by searching and going freely in multiple directions instead of going in one direction, and it focuses on generating new ways of seeing things, and if creativity is a way of using our minds, then lateral thinking is the best way to use our minds, as it is a tool of creativity." And it is possible to develop his skills through practice and training" (Abdul-Jabari, 2021: 101).

The researcher defines it procedurally as: the ability of the student who has the skill to solve the problem he encounters in a creative way, as he responds to the paragraphs presented to him by the professor, and it is measured by the total score obtained by the student through his answer on the scale of thinking outside the box prepared by the researcher for the purposes of this search.

Teaching Methods subject:

Teaching Methods for the third stage: The course aims to introduce students to the basics of the teaching process and to give students the qualities of a professor in terms of characteristics, qualities and duties, and to master the competencies of lesson planning in terms of procedural objectives, teaching procedures, and evaluation methods. The course also deals with a number of teaching

methods that can be used. In teaching any subject, such as: the method of dialogue and discussion, induction, deduction, cooperative learning, inquiry, with opportunities for students to practice them through micro-teaching (Al-Hashemi et al., 2021: 21).

The researcher defined it procedurally as: the subject that the researcher studied during a whole semester that included four chapters dealing with the nature of the teaching process, lesson planning, defining educational objectives and evaluation, the qualities of a successful professor, and reviewing some of the teaching methods and their application in the classroom such as lecture, discussion, investigation, and guided discovery. Cooperative learning.

Chapter Two: A theoretical framework and previous studies

The first axis: the theoretical framework

First, active learning

Active learning is a style of teaching that depends on self-activity and the positive participation of the student through scientific activities and processes such as observation, hypothesis, measurement, reading data and conclusion in order to reach the required information by himself, under the supervision, guidance and evaluation of the professor. Studies indicate that active learning makes the student able to acquire Skills and knowledge of himself (Al-Janabi, 2019: 43).

The traditional method in which the professor does and the student listens to what the professor says is prevalent among the teachers in various schools of general education or even university education. , that the method of viewing by students in the classroom, whether for a lecture or a computer presentation, does not lead to active learning. Active learning should involve students in activating and adopting their mental abilities such as reading, writing, discussing, solving a problem related to what they learn, experimental or applied work,

or Analytical.....etc. From the above, active learning includes all “teaching and learning strategies that involve students in thinking about what they have learned, searching for knowledge and applying it.” Active learning requires that the student in the classroom be mentally, physically and mentally active (Badawi, 2019: 25).

Second: Your question and answer strategy

It is one of the active teaching strategies that help and make the student the focus of the educational process and its goal, as the student identifies his questions about the educational material to be taught and answers the questions of his colleagues based on his information.

Teaching steps with your questions and answers strategy

1. Students prepare the lesson material with typical questions and answers to each question.
2. The teacher provides a simplified explanation of the lesson as an introduction to the lesson.
3. The professor asks a question about the studied material, is the first instigator of the questions, and gets the answer from the students.
4. Students present their questions in turn, and after each question is presented by each student, the students try to answer the model for it.
5. The teacher answers the students' answers and then asks the student who prepared the question to provide him the model answer. (Al-Saadi, 2021: 88-89)

An applied example of (your questions and answers strategy) prepared by the researcher:

Subject: Teaching Methods Level: Third

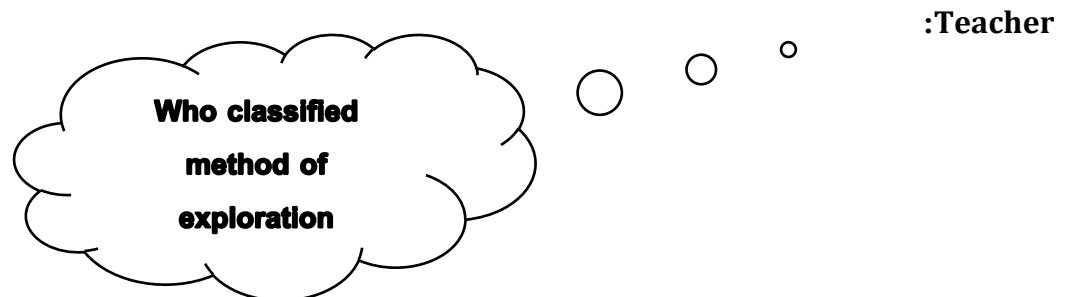
Subject of the lesson: Exploration method: Education / Department of Arabic Language

1. Students prepare the lesson material with typical questions and answers to each question.
2. The teacher provides a simplified explanation of the lesson as an introduction to the lesson:

The method that puts the student in the position of the first researcher who discovered a scientific principle, a machine, a device, or scientific laws, and the use of mental processes to discover a particular concept or principle.

Or the individual's attempt to obtain knowledge on his own without the help of a professor by using previous information to gain access

3. The teacher asks a question about the studied material and is the first to raise the questions and gets the answer from the students



4. Students submit their questions successively, and after each question is submitted by each student, the students transfer the model answer to it.

Student

classified exploration method		
free exploration	Unguided exploration	guided exploration

5. The teacher answers the students' answers and then asks the student who prepared the question to provide him the model answer:
 Here the professor explains the topic and the students discuss what they have reached through the model answers

A thinking process that requires the individual to reorganize and disassemble the information stored in him in a way that enables him to see good relationships that were not known to him before

his goals

- **That the student explores the concepts and principles on his own by interacting with the situation and using insight.**
- **That the student gets used to seeking knowledge by himself as a**

Third: Think outside the box

It means originality, creativity, or modernity, and it means trying to solve problems in unconventional ways. To solve the problem facing us in multiple ways and to look at it from different angles to reach the optimal solution to it (Zayer and Israa, 2020: 87), the scientist Edward Debono did not stop at this only, but also developed this kind of creativity on understanding the mechanism by which the brain works. The brain organizes the information received through the senses in a self-organizing way, as the brain works to form patterns, and search for them later, as the patterns represent the organization of information on the surface of the memory and indicate a chronological sequence of ideas and concepts, in response to the information received. And in that it is like water falling from the sky on a soft ground that takes the available paths to it. The brain's ability to form patterns makes it able to know things and the speed of

interaction with them, which allows it to explore what is around it effectively (swearing). August, 2018: 29).

The second axis: previous studies:

The previous studies form part of the frame of reference and theoretical frameworks for the problem of the study, and it goes beyond trying to identify the ideas of others and related results to trying to critique and analyze previous knowledge and assess the extent of its relevance or relationship to the subject of the research to be implemented, and the review should be detailed and comprehensive to save time in writing the research later. Because it is better to look at previous studies and the efforts of others before writing the research and collecting its data, as the researcher will do the review at some point, it is better to do it before carrying out the research and collecting data (Al-Dulaimi, 2022: 75), and after informing the researcher of

previous studies and literature , The researcher did not find any study that dealt with the strategy of your questions and my answers as an independent variable. As for the second dependent variable, the researcher found two studies, which were arranged according to the temporal hierarchy.

1. Al-Jurani Study (2010)

(Thinking outside the box and its relationship to personality traits according to the model of the list of the five factors of personality among university students)

The study was conducted in Iraq, and the study aimed to measure out-of-the-box thinking and personality traits among university students according to the two variables (gender - specialization). And Makri) and the Arabization of Al-Ansari, and the scale consisted of (55) items. Applying the tools in their final form, the researcher reached results, including a low level of thinking outside the box among university students in various specialties, there is no statistically significant relationship between thinking outside the box and the characteristics of neuroticism, extraversion and kindness, while the results showed that there is a statistically significant relationship between thinking outside the box and the feature of openness to experience and conscientiousness, and that males are better in the relationship between thinking outside the box and the trait of openness to experience than females, while it was found that females are better In the relationship between out-of-box thinking and conscientiousness trait of males (Al-Jourani, 2010).

2. Gharbawy Study (2013)

(Thinking outside the box and its relationship to cognitive motivation among middle school students)

The study was conducted in Iraq, and the study aimed to measure the level of thinking outside

the box among middle school students for the variables of gender (males, females) and the branch (scientific, literary). The apparent validity of the construction and the reliability coefficient by the re-test method. The two tools were applied to a sample of (400) male and female students who were chosen by the interim random method from the middle school students. After collecting the data, the researcher concluded that there is a statistically significant relationship between thinking outside the box and the cognitive motivation of the research sample. Also, there is no difference in the relationship between thinking outside the box and cognitive motivation according to the variables of gender and branch, (Al-Gharbawi, 2013).

Chapter Three: Research Methodology and Procedures

First: Research Methodology:

The researcher followed the experimental method, in order to suit the requirements of the current research in testing the two hypotheses of the research and reaching honest results for the variables of her current research.

Second: Experimental Design:

The choice of the experimental design is one of the important things carried out by the researcher, as it helps the researcher in identifying the factors surrounding the experiment so that the researcher can know what is happening and what he is doing, and since the current research includes three variables: one of them is an independent variable, which is the strategy of your questions and my answers, and the two dependent variables (achievement, Thinking outside the box) the researcher chose the experimental design with partial control as shown in Table (1)

Table (1): Experimental Design

Search tool	dependent variable	Independent variable	Group
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Academic achievement test + The scale of Thinking outside the box	Academic achievement + Thinking outside the box	Your question and my answers strategy	Experimental
		The usual method	Controller

Research community and sample:

1. Research community: The research community represents the students of the third stage / College of Education, Department of Arabic Language.^v

2. The research sample: The sample was chosen from the third stage of the Arabic Language Department/Morning Study/College of Basic Education/Babylon University intentionally for the following reasons:

- a) There are two divisions for the third stage for students of the Arabic Language Department, and this is what the current study requires.
- b) The college classrooms are similar in terms of lighting and ventilation, which eliminates any foreign factor in the results.
- c) The department chair and professor of Teaching Methods showed more willingness to facilitate the task of research experience and its implementation than other colleges.

After obtaining the approvals, the researcher visited the department and agreed with the professor of the subject to collect information related to the third stage students, for the purpose of conducting parity later on in some variables (will be mentioned later). The researcher performed the following steps:

- Division (A) was chosen randomly to be the experimental group that studied according to the strategy of your questions and my answers, and class (B) to be the control group that studied according to the usual method.
- Counting the number of third-grade students, as their total number reached (73) male and female students, and after excluding one student due to absence, the final number reached (72) male and female students. The number of students in the control group was (37) male and female, as shown in Table (2)

Table (2): distribution of the research sample to the experimental and control group before and after exclusion

Final number of students	The number of students who have failed	The number of students before exclusion	Group	T
35		35	Experimental	1
37	1	38	Controller	2
72	1	73	Total	

Fourth: Equality of the two research groups:

The researcher was keen to make equivalence with the following variables: (chronological age calculated in months, previous academic

achievement, previous information, intelligence test, scale of thinking outside the box), and the following is a table showing the above equivalences

Table (3): Arithmetic mean, standard deviation, and the two T values of the research variables for the two research groups

	The tow T values			SMA		Group	Variable
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Statistical significance	Tabular	Calculated	Freedom Degree	Standard deviation		Number		
Not statistically significant	2.000	1.084	70	13.047	248.657	35	Experimental	Chronological age
				9.455	245.756	37	Controller	
	1.012	15.658		69.257	35	Experimental	Previous achievement	
		12.991		65.783	37	Controller		
	0.355	0.588		4.722	28.628	35	Experimental	IQ test
				5.695	28.189	37	Controller	
	0.588	0.588		4.446	20.771	35	Experimental	Thinking outside the box test
				3.956	20.189	37	Controller	

Fifth: Controlling extraneous variables:

It is the stabilization of the factors and variables that are related to the phenomenon under study except for the independent factor. In experimentation, a group of factors and variables that affect the research experience, and specifically affect the dependent variable may be in favor or against it, and thus to obtain good results, and to know the effect of the factor.

The independent must control the extraneous variables before conducting the experiment, which means limiting all the variables except for the independent variable in order to isolate them and prevent their impact on the result. Classes: The two research groups studied according to the prescribed classes for the subject of teaching methods at the rate of one class per week, and table (4) shows this

Table (4): Distribution of weekly lectures and time

Class period	class time	two search groups	Day
Morning	8:30	Experimental	Sunday
	8:30	Controller	Monday

Sixth: Research requirements:

1) **The educational subject:** The researcher has determined the educational material that she will teach, which includes the teaching methods subject for the third stage students to be taught by the Deans' Committee for the academic year (2021-2022), which are: (Chapter One: The Nature and Foundations of the Teaching Process, Chapter Two: Educational Objectives, Chapter Three: Ancient and Modern

Teaching Methods, Chapter Four: Planning for Teaching.

2) **Behavioral objectives:** (120) behavioral objectives have been prepared, distributed over the content of the four chapters of the Teaching Methods book to be taught. On a group of experts and specialists in teaching, measurement and evaluation methods to express their opinions and observations about their validity and the soundness of their formulation, and in light of those

observations, some purposes were modified until they became final. installation, Table (5) shows the behavioral objectives of the four chapters distributed on the levels

(remembering, understanding, applying, analyzing, synthesising, and evaluating).

Table (5): Behavioral Objectives

Total	Evaluation	Installation	Analyzing	Applying	Understanding	Knowledge	T
39	2	3	4	6	10	14	1
35	1	3	4	5	9	13	2
27	2	2	2	2	8	11	3
19	1	2	2	1	4	9	4
120	6	10	12	14	31	47	Total

3) Teaching aids: Given the importance of the educational medium in the educational process, what is available from it was used to teach the subjects of Teaching Methods for the two research groups: (a chart showing the levels of educational goals, a chart showing the levels of behavioral goals and how to formulate them, a daily teaching linear model Chart showing the sections of the educational calendar, the blackboard and colored pencils).

4) Teaching plans: The researcher prepared two models for a teaching plan for teaching methods, which were presented to a group of experts with expertise and specialization, to know their suitability for use in teaching research groups. The research experience, and the number of teaching plans reached (23) for each group, which are representative of the subjects of Teaching Methods.

classification, which are (remember, understand, apply, analyze, install, evaluate) and the number of lessons prescribed in the teaching plans for teaching each chapter was adopted in determining the weight of the content, and the number of test items for each semester and the level of objectives were obtained as follows:

- ✓ The relative importance of each chapter, according to the following relationship:

Relative importance of class content =

$$\frac{\text{The number of classes scheduled for the semester}}{\text{Total class quota}} \times 100$$

- ✓ The relative importance of the level of each goal and according to the following relationship:

The relative importance of each goal level =

$$\frac{\text{Total goals for target level}}{\text{total goals}} \times 100$$

Seventh: The search tools:

1. The achievement test: The researcher followed the following steps in preparing the test:

- a) Preparation of the test map: A test map was prepared with the aim of distributing the achievement test paragraphs to the various parts of the units of the scientific subject and to all behavioral purposes in a homogeneous manner. Behavioral levels of the cognitive domain of Bloom's

The number of test items for each level of objectives within one chapter using the following equation:

The number of test items within one chapter (3)
 = the relative importance of the content of the

chapter x the relative importance of the level of objectives x the sum of the test items (Al-Dosari, 2022: 86-87)

Table (6): Specifications table for the achievement test

Total	Percentage of behavioral goals						Relative importance	Total	Chapters
	Evaluating	Installing	Analyzing	Applying	Understanding	Remembering			
100%	%5	%8.3	%10	%11.7	%28.5	%32.5			
13	1	1	1	2	3	5	%32.5	39	Chapter one
12	1	1	1	1	3	5	%29.1	35	Chapter tow
9	0	1	1	1	2	4	%22.5	27	Chapter three
6	0	0	1	1	2	2	%15.8	19	Chapter Four
40	2	3	4	5	10	16	%100	120	Total

Formulation of test items:

In light of the test map, test items were prepared in the form of (multiple choice, and specific articles) a multiple-choice question, each of which contains four alternatives, one of which represents the correct answer.) for each incorrect answer, and the left answer was treated as the incorrect answer, and the test included all the topics that were studied during the experiment, and the number of test items was (30) items that represented an initial formula. As for the specific essay question, it may consist of ten questions, each question has three degrees To verify the validity of the test items, the researcher followed the following steps:

The validity of the test:

In order to verify the validity of the test, two types of validity were relied upon:

- **Apparent honesty:** The researcher distributed the achievement test,

accompanied by the behavioral objectives and the specification table, to a group of specialists in education and teaching methods.

- **Content validity:** the degree to which the test measures the content of the study subject to be measured. The validity of the content requires two things: the validity of the paragraphs in terms of the fact that the items represent the academic content, and the validity of the preview in terms of the inclusion of the test items for the content of the study material (Al-Zubaidi, 2021: 87), and therefore the items The test is representative and comprehensive of the content, by relying on the specification table.

Formulation of test instructions:

The instructions for answering were prepared on a paper independent of the test papers and included giving an idea of the type of questions,

how to answer the test, being accurate and not leaving any paragraph unanswered.

The exploratory experiment of the test:

In order to verify the clarity of the test items, their level of difficulty, the strength of their discrimination, and the time taken to answer them, the test was applied to an exploratory sample consisting of (150) students from the third stage of the College of Education for Human Sciences (Baghdad University and Al-Mustansiriya University). That they were notified of the test date a week before the test date, and the researcher supervised the test and clarified the instructions for answering its paragraphs, distributed the answer form, and took the necessary measures for the safety of applying the test, and the average time for answering all test paragraphs was (45) minutes, and the researcher corrected Students' answer sheets according to the correction key prepared in advance, to carry out the necessary statistical operations.

Statistical analysis of the test items:

The objective of the statistical analysis of the test items is to know the difficulty level of each item, and its ability to distinguish between individuals with high and low abilities, as well as to identify the effectiveness of the item alternatives, and then judge the validity and reliability of the test, so the researcher conducted Statistical analysis to identify those characteristics, as follows:

- **Paragraph difficulty level:** The difficulty level of the paragraphs was calculated for the test and it was found that it lies between (0.58 - 0.48), and thus all paragraphs are considered acceptable in terms of their difficulty level.
- **The discriminatory power of the items:** The item discrimination coefficient was calculated for the test and it was found that it ranges between (48.0-93.0) and thus all test items are considered good; As shown in Table (7).

Table (7): the correct answers in the upper group and the lower group with a percentage of 27% to extract the coefficient of difficulty and the coefficient of discrimination for the items of the achievement test

Paragraph highlight	Paragraph difficulty	The correct answers are in the lower group	The correct answers are in the upper group	T	Paragraph highlight	Paragraph difficulty	The correct answers are in the lower group	The correct answers are in the upper group	T
0.83	0.51	4	37	16	0.83	0.51	4	37	1
0.70	0.53	7	35	17	0.78	0.54	6	37	2
0.78	0.51	5	36	18	0.70	0.55	8	36	3
0.80	0.50	4	36	19	0.75	0.55	7	37	4
0.80	0.53	5	37	20	0.68	0.56	9	36	5
0.78	0.54	6	37	21	0.88	0.54	4	39	6
0.83	0.49	3	36	22	0.75	0.53	6	36	7
0.73	0.56	8	37	23	0.90	0.48	1	37	8
0.78	0.56	7	38	24	0.80	0.55	6	38	9
0.78	0.54	6	37	25	0.68	0.54	8	35	10
0.70	0.58	9	37	26	0.75	0.55	7	37	11
0.93	0.51	2	39	27	0.78	0.54	6	37	12
0.85	0.53	4	38	28	0.78	0.56	7	38	13

0.80	0.50	4	36	29	0.75	0.58	8	38	14
0.70	0.58	9	37	30	0.68	0.56	9	36	15

Analysis of the paragraphs of the essay test to calculate the coefficient of difficulty and discrimination:

The analysis of the items in the essay tests is equally important in objective tests, in order to obtain good questions, and through the following equation, the coefficient of discrimination is found:

$$T = \frac{mg_p - mg_d}{n \times k}$$

As for the difficulty coefficient, it is done through the following equation

$$S = \frac{mc + mdt \text{ of students } \times \text{ degree}}{ns^2}$$

(Eid, 2021: 142)

Table (8): Difficulty and discrimination coefficient for essay paragraphs

Highli ght	Difficul ty	The number of answers in								Paragraphs of the second question articles
		lower group				senior group				
		3	2	1	0	3	2	1	0	
0.63	0.52	0	5	15	20	20	20	0	0	1
0.53	0.60	0	10	20	10	24	16	0	0	2
0.50	0.58	0	12	16	12	20	20	0	0	3
0.53	0.59	0	11	17	12	22	18	0	0	4
0.63	0.60	0	7	20	13	30	10	0	0	5
0.45	0.59	0	13	18	9	18	22	0	0	6
0.63	0.55	0	7	15	18	24	16	0	0	7
0.49	0.60	0	12	19	9	22	18	0	0	8
0.59	0.55	0	6	18	16	21	19	0	0	9
0.44	0.61	0	18	11	11	20	20	0	0	10

The effectiveness of the wrong alternatives: when calculating the effectiveness of the wrong alternatives for the test items, the researcher found that it was between (-0.3-0.25-), and she

attracted to her a number of the lower group more than the upper group, and thus the wrong alternatives were kept as they are without making any change as in Table (9).

Table (9): Effectiveness of Test Wrong Substitutes for Test Items

The efficacy of the wrong alternatives					The efficacy of the wrong alternatives				
D	G	B	A	T	D	G	B	A	T
0.15-	0.11-	0.07-		21	0.11-	0.11-	0.15-		1
0.11-	0.22-	0.07-		22	0.19-	0.15-		0.15-	2
0.22-		0.15-	0.07-	23	0.11-	0.15-	0.07-		3

0.15-	0.22-	0.11-		24		0.26-	0.07-	0.11-	4
0.19-		0.15-	0.11-	25	0.19-	0.11-	0.07-		5
0.26-	0.11-		0.11-	26	0.15-		0.15-	0.11-	6
0.22-	0.15-		0.11-	27	0.11-	0.11-	0.19-		7
	0.11-	0.11-	0.15-	28	0.19-	0.15-	0.11-		8
0.15-	0.22-	0.04-		29		0.11-	0.15-	0.15-	9
0.07-	0.19-	0.19-		30		0.11-	0.15-	0.11-	10
0.15-		0.07-	0.11-	31	0.11-	0.11-		0.15-	11
	0.15-	0.11-	0.3-	32	0.11-	0.07-		0.15-	12
0.15-	0.07-	0.19-		33	0.11-	0.15-		0.19-	13
0.22-		0.11-	0.07-	34	0.15-	0.07-		0.3-	14
0.07-	0.15-	0.15-		35	0.11-	0.19-		0.26-	15

Test reliability: When the Alpha/Cronbach equation was applied to the achievement test, the test stability score was (0.94), which means that the test's internal consistency is good.

1 .Scale of Thinking Outside the Box:

This research requires measuring the thinking outside the box among the members of the research groups. (40) paragraphs, and each paragraph has two alternatives, one of which measures thinking outside the box, and the other does not measure, and the answer alternatives are given (1, zero), and it was used in the current research; This is due to its high sincerity and stability, and is contagious to the Iraqi environment and to university students.

➤ **The exploratory experiment of the scale:**

To ensure the clarity, stability and instructions of the scale's paragraphs, the scale was applied to the same sample on which the exploratory experiment was applied for the test, which consisted of (150) male and female students of the third stage in the College of Education for Human Sciences from (University of Baghdad and Al-Mustansiriya University) in The Department of Educational and Psychological Sciences,

and the scale was applied at the University of Baghdad, after agreement with the heads of the two departments of the Arabic language at the University of Baghdad and Al-Mustansiriya University.

- **-Validity of the scale:** Despite the scale's suitability to the Iraqi environment, the apparent validity of the scale was verified because it is one of the indicators of content validity that can be achieved, and it was achieved in the current research by displaying the scale in a questionnaire to (13) arbitrators from specialists in Educational and psychological sciences, and the approval of (10) arbitrators or more as a criterion for the appropriateness of the paragraphs of the research sample, so the scale in its final form consists of (40) paragraphs.

-Statistical analysis of the items of the thinking outside the box scale:

- **Discriminatory strength of the item:** It appeared that the discrimination coefficient of the measurement items ranges between (0.43 -0.88), so all the items of the scale have an acceptable discriminatory power, as in Table (10).

Table (10): The correct answers in the upper group and the lower group with a percentage of 27% to extract the coefficient and discrimination coefficient for the items of the thinking outside the box scale

Paragraph highlight	The correct answers are in the lower group	The correct answers are in the upper group	T	Paragraph highlight	The correct answers are in the lower group	The correct answers are in the upper group	T
0.68	10	37	21	0.78	6	37	1
0.68	9	36	22	0.58	13	36	2
0.70	9	37	23	0.58	13	36	3
0.70	10	38	24	0.60	13	37	4
0.83	5	38	25	0.43	19	36	5
0.65	12	38	26	0.75	9	39	6
0.75	9	39	27	0.73	7	36	7
0.70	10	38	28	0.88	2	37	8
0.70	8	36	29	0.63	12	37	9
0.63	14	39	30	0.58	12	35	10
0.73	7	36	31	0.55	14	36	11
0.80	4	36	32	0.48	17	36	12
0.75	7	37	33	0.65	11	37	13
0.63	10	35	34	0.68	10	37	14
0.63	11	36	35	0.60	12	36	15
0.60	12	36	36	0.68	10	37	16
0.63	11	36	37	0.63	10	35	17
0.68	11	38	38	0.63	11	36	18
0.55	14	36	39	0.63	11	36	19
0.60	13	37	40	0.68	10	37	20

- Paragraph correlation coefficient with the total score: To verify the sincerity of the paragraphs, the researcher calculated the correlation of the clause with the total score from the answers of the statistical analysis sample, which numbered (150) male and female students. :

Table (11): Correlation coefficient of the paragraph with the total score Point by Serial

T value	correlation coefficient	T	T value	correlation coefficient	T	T value	correlation coefficient	T	T value	correlation coefficient	T
10.417	0.565	31	8.391	0.492	21	7.337	0.448	11	9.895	0.547	1
8.422	0.493	32	8.844	0.509	22	4.996	0.335	12	7.358	0.449	2
8.549	0.498	33	9.448	0.509	23	7.354	0.449	13	7.546	0.457	3
7.914	0.472	34	8.062	0.479	24	8.199	0.484	14	8.270	0.487	4
7.983	0.475	35	11.442	0.597	25	8.416	0.493	15	5.780	0.375	5
5.149	0.343	36	7.157	0.440	26	8.314	0.489	16	9.745	0.542	6
6.847	0.426	37	9.885	0.547	27	8.313	0.489	17	9.945	0.549	7

6.699	0.420	38	7.542	0.457	28	6.725	0.421	18	11.262	0.592	8
7.536	0.457	39	8.929	0.512	29	7.400	0.451	19	7.984	0.475	9
7.057	0.436	40	6.105	0.391	30	7.440	0.453	20	6.933	0.430	10

The stability of the test: The researcher calculated the stability of the thinking outside the box scale and its validity on the current research community by applying it previously on the current research sample of 129 male and female students from the third stage of the Arabic Language Department from the students of the College of Education - University of Diyala, and it was as follows:

- ❖ The method of internal consistency: the researcher used the equation (Kewder Richard Son) in calculating the internal consistency for the stability of the thinking outside the box scale; Because it indicates the homogeneity of the

paragraphs, which corresponds to the concept of true stability, the scale stability coefficient on the current research community was (0.93), which is a good reliability coefficient.

- ❖ The method of reliability by repetition: The reliability coefficient was calculated by the re-test method. The researcher pulled (50) from the research sample, and after a month from conducting the first test, the researcher repeated the same test on the same sample, and the Pearson correlation coefficient reached (0.89), as shown in Table (12).

Table (12): Test reliability by retesting the Out-of-Box Thinking Scale

Second application	First application	T	Second application	First application	T	Second application	First application	T	Second application	First application	T
25	25	40	38	38	27	39	39	14	40	38	1
24	24	41	38	40	28	39	34	15	40	38	2
24	19	42	38	31	29	39	33	16	40	37	3
24	24	43	37	32	30	39	35	17	39	40	4
23	23	44	37	37	31	39	33	18	39	40	5
23	23	45	37	37	32	38	32	19	39	40	6
23	23	46	37	37	33	38	39	20	39	40	7
23	30	47	37	37	34	38	40	21	39	38	8
23	23	48	29	20	35	38	38	22	39	38	9
23	23	49	28	28	36	38	38	23	39	37	10
22	22	50	27	18	37	38	38	24	39	40	11

			26	26	38	30	25	39	40	12
			25	25	38	38	26	39	35	13

Eighth: Statistical Means:

I used the statistical program (SPSS) to accurately process the data to extract the results.

Chapter Four: Presentation and Interpretation of Results

:First, show the results

Ø **The results of the first hypothesis: The researcher prepared an achievement test for the subject of teaching methods, and it was applied to the two research groups. Independent as shown in Table (13)**

Table (13): Arithmetic mean, standard deviation, variance, and the two T-values for students' scores

The two groups of the two groups in the academic achievement test

Statistical significance	Tow T values		Freedom Degree	Standard deviation	SMA	Number	Group
	Tabular	Calculated					
Significant	2	6.214	70	7.990	46.571	35	Experimental
				9.569	33.621	37	Tabular

It is noted from Table (13) that the arithmetic mean of the scores of the experimental group students is (46,571) and a standard deviation (7.990), and the arithmetic mean of the scores of the students of the control group is (33.621) and the standard deviation is (9.569), and the calculated t-test value is (6.214).), which is greater than the t-table value of (2), at a degree of freedom (70); Thus, it is clear that the

experimental group outperformed the control group in the achievement test.

- **The results of the second hypothesis:** The arithmetic mean, standard deviation and variance of the scale of thinking outside the box were calculated for the scores of the students of the two research groups, and then the t-test was applied for two independent samples as shown in Table (14).

Table (14): Arithmetic mean, standard deviation, calculated and tabular T-values For the scores of the students of the two research groups in the scale of thinking outside the box

Statistical significance	The tow T values		Freedom Degree	Standard deviation	SMA	Number	group ^l
	Tabular	Calculated					
Significant	2	3.531	70	4.0827	28.514	35	Experimental
				4.284	25.027	37	Tabular

It is noted from Table (14) that the arithmetic mean of the scores of the experimental group students is (28.514), with a standard deviation of (4.0827), and the arithmetic mean of the scores of the students of the control group is (25.027), and with a standard deviation of (4.284), and by applying the t-test for two independent samples, it reached The value of the t-test for two independent samples is (3.531), which is greater than the T-table value of (2), and thus it becomes clear that the experimental group is superior to the students

of the control group in the scale of thinking outside the box.

Effect size: To identify the effect of teaching using your questions and answers strategy on achievement and thinking outside the box among students of the Arabic Language Department / Third Stage in Teaching Methods, as the researcher calculated the effect size using the equation of Cohen's method as shown in Table (15).

Table (15): The effect size of the independent variable on the achievement variable of teaching methods and thinking outside the box

effect size	Impact size value	Dependant variable	independent variable
Regular	0.785	Teaching methods course material	The strategy of your questions and my answers
Big	0.994	Thinking outside the box	

Second: Interpretation of the results:

- 1) Teaching according to your questions and my answers strategy had a positive impact on understanding scientific information and facts through cooperating groups and what students discuss, and this leads to raising their scientific level and raising their level of achievement.
- 2) Your Questions and My Answers strategy played an effective role by linking previous and new information; As well as the questions asked by the researcher at the beginning of the lesson, which revealed what the students of the experimental group possessed of concepts related to the new topic, and thus excite the students and motivate them to actively participate in the lesson, which leads to the consolidation of information.

Interpretation of the results related to the second null hypothesis:

- 1) Activate the mental processes of students through teaching according to

the strategy of your questions and my answers, as well as through the exchange of opinions and solutions, thus prompting the students to think outside the box and provide more than one solution or answer to the questions posed and access to new information.

- 2) The use of the strategy of your questions and my answers was an incentive to stimulate thinking outside the box for students in searching and investigating facts and information and revealing ambiguities in the content of the study material while reading it and deducing what is true and judging the validity of the information in it, which led to stimulating thinking outside the box for them.

Third: Conclusions:

In light of the experiment carried out by the researcher and the results obtained and the reasons that resulted from the research, the researcher reached the following conclusions:

- 1) The strategy of Your Questions and My Answers has a positive impact on increasing the achievement of third-

year students / Department of Arabic Language / College of Basic Education / University of Babylon in the subject of teaching methods and increasing their abilities in understanding information, facts and knowledge and raising their academic level.

- 2) The strategy of Your Questions and My Answers has a major role in raising the level of thinking outside the box among students of the Arabic Language Department / the third degree.

Fourth: Recommendations:

After presenting and interpreting the results, the researcher recommends the following:

- 1) The necessity of adopting the strategy of your questions and my answers in teaching the subject of Teaching Methods for the undergraduate level.
- 2) Submit an invitation to the Department of Continuing Education to set up a training course and teaching programs for the teachers of the Arabic Language Department for the purpose of providing them with modern teaching methods and methods in general and the strategy of your questions and my answers in particular, to benefit from them in raising the level of student achievement.

Fifth: Suggestions:

The researcher suggests in light of the following results:

- 1) Conducting a similar study using your questions and answers strategy in other variables (convergent thinking, fluid intelligence, natural intelligence).
- 2) Conducting a similar study using your questions and answers strategy in different study subjects and other study stages (geography, history, literature).
- 3) Conducting a comparative study between your questions and answers strategy and modern teaching methods in different age variables and stages.

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