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THE EFFECTIVENESS OF THE QUESTION-AND-ANSWER STRATEGY AMONG FIRST-GRADE INTERMEDIATE STUDENTS IN ARABIC LANGUAGE AND THEIR PROBE THINKING

A EFICÁCIA DA ESTRATÉGIA DE PERGUNTAS E RESPOSTAS ENTRE ALUNOS DO PRIMEIRO ANO DO ENSINO FUNDAMENTAL II NA DISCIPLINA DE LÍNGUA ÁRABE E SEU PENSAMENTO INVESTIGATIVO

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The authors declare that there is no conflict of interest

Abstract
The research aims to identify the effectiveness of the strategy of passing the question and answer among first grade students in the Arabic language and their probe thinking. To achieve the goal of the study, the researcher formulated the following null hypothesis: There are no statistically significant differences at the (0.05) level between the mean scores of the students in the experimental group who study Arabic according to the question-and answer passing strategy, and those of the students in the control group who study Arabic in the conventional way, on the Saber thinking test. Based on the aim and hypothesis of the research, an experimental design (partially controlled), composed of two equivalent groups (experimental group and control group) and post-test checking Saber's thinking were used by the researcher. The school chosen was two first intermediate classes: Section (A) and Section (B). The two groups were designated randomly, Section (A) was chosen as the experimental group which was taught Arabic using the passing strategy of questioning and answering among students, while Section(B) was considered as the control group which was taught in the conventional method. The total sample was 61 students of which 31 students in Section (A) and 30 students in Section (B). With the purpose of similarity of homogeneity principle in the very important fields among the students of both the groups, some of the variables were equalized as per the researcher: (Chronological age calculated in months, Arabic language test scores for the first semester of the academic year (2022-2023), intelligence test (Danlis), and sounding thinking test)The researcher prepared a tool for research, testing the thinking of the sounder and may be of

Resumo
A pesquisa tem como objetivo identificar a eficácia da estratégia de troca de perguntas e respostas entre alunos do primeiro ano do ensino fundamental na disciplina de língua árabe e seu pensamento investigativo. Para atingir o objetivo do estudo, o pesquisador formulou a seguinte hipótese nula: Não há diferenças estatisticamente significativas no nível (0,05) entre as pontuações médias dos alunos do grupo experimental, que estudam árabe de acordo com a estratégia de troca de perguntas e respostas, e as dos alunos do grupo de controle, que estudam árabe da maneira convencional, no teste de pensamento Saber. Com base no objetivo e na hipótese da pesquisa, o pesquisador utilizou um desenho experimental (parcialmente controlado), composto por dois grupos equivalentes (grupo experimental e grupo controle) e uma verificação pós-teste do pensamento de Saber. A escola escolhida foi composta por duas turmas do primeiro ano do ensino fundamental: Seção (A) e Seção (B). Os dois grupos foram designados aleatoriamente: a Seção (A) foi escolhida como grupo experimental, no qual o árabe foi ensinado utilizando a estratégia de perguntas e respostas entre os alunos, enquanto a Seção (B) foi considerada o grupo de controle, no qual o ensino foi realizado pelo método convencional. A amostra total foi de 61 alunos, dos quais 31 na Seção (A) e 30 na Seção (B). Com o objetivo de garantir a homogeneidade em aspectos fundamentais entre os alunos de ambos os grupos, algumas variáveis foram equalizadas de acordo com o pesquisador: (idade cronológica calculada em meses, notas do teste de língua árabe no primeiro semestre do ano letivo (2022-2023), teste de inteligência (Danlis) e teste de

(28) paragraphs and was confirmed of its apparent sincerity and the strength of discrimination paragraphs and the effectiveness of its wrong alternatives. Brand identity was positioned, in line with the study objectives, as dependent variables of interest, while parts of the brand identity model had been identified as independent variables. In the results, it was found after statistical analysis that the students of the experimental group outperformed the control group respondents. We elaborated a comprehensive set of conclusions, recommendations and implications, presented by the researcher, corresponding to the findings, in Chapter Four.

Keywords: Question-and-Answer Passing Strategy. First Intermediate Grade Students. Arabic Language.

raciocínio auditivo) O pesquisador preparou uma ferramenta de pesquisa para testar o raciocínio lógico, composta por 28 itens, cuja validade aparente, poder de discriminação e eficácia das alternativas erradas foram confirmados. A identidade de marca foi posicionada, em consonância com os objetivos do estudo, como variável dependente de interesse, enquanto partes do modelo de identidade de marca foram identificadas como variáveis independentes. Nos resultados, constatou-se, após análise estatística, que os alunos do grupo experimental superaram os respondentes do grupo de controle. Elaboramos um conjunto abrangente de conclusões, recomendações e implicações, apresentadas pelo pesquisador, correspondentes aos resultados, no Capítulo Quatro.

Palavras-chave: *Estratégia de Aprovação em Perguntas e Respostas. Alunos da Primeira Série do Ensino Fundamental II. Língua Árabe.*

1 INTRODUCTION

The current era has witnessed successive developments in all areas of life, and it was necessary to keep pace with this development and catch up with it and absorb this huge amount of information, there was a need to move from teaching methods based on indoctrination to those methods that depend on the work of the student's mind and development in a way that makes him a participant in the educational process and not a recipient, in order to form correct cognitive structures that lead him to absorb information .and conclude and extract new information

In addition, the researcher noticed a clear decline in the achievement of students in this subject, through dialogues and discussions with some teachers of the subject about the methods and methods adopted in their teaching of it, and it was found that most of them revolve around the usual method, which is a combination of recitation and short .questions

Based on the foregoing, the researcher summarizes that philosophy still views the subject as a goal in itself, and behaves in a way that lacks probe thinking, as they are often unable to open up to new experiences that enable them to absorb new topics instead

of remaining stuck thinking about old information when confronted with new situations and in a way that makes you refuse defeat and generates a serious desire to change, and in order to improve the learning process, it is necessary to study the reality of the educational process. Including the subject of Arabic language to overcome the negatives diagnosed by the studies, and thus the need to adopt a question-and-answer strategy to organize the educational environment in a thoughtful and scientific manner in light of achieving the desired goals, and in light of the above, the problem of the current research :was identified through the following question

What is the effectiveness of the question-and-answer strategy of first-grade) (?intermediate students in Arabic language and their patient thinking

:Second: The importance of research

Science today is witnessing rapid development and a comprehensive scientific renaissance, as it undertakes the accumulation of scientific discoveries and theories and their technological applications, so science and its technologies have become necessary things that affect the lives of all members of society to become keeping pace with the ,changes of the times, and until research and its applications are linked to modern society the technical application of the findings of different sciences clearly influences the growth of scientific knowledge in all fields. (Darwish, 2015: 29), and countries have realized this fact and are seeking change by providing all their energies and effort in developing their societies materially and intellectually, and education is the means of society to bring about this change, as it is its responsibility to develop the skills of the individual and hone his skills so that he can handle the products of that scientific revolution and adjust to its outcomes. (Al-Dulaimi et al., 2020: 39), and education through this development is a dynamic and sophisticated process that keeps pace with modern scientific and technological developments, so it is continuous and permanent It is determined by a certain period of time, it includes the life of the entire individual from cradle to grave and involves multiple institutions, including the family, society and school, it comes as a result of the individual's interaction, positivity and activity, and as a result of this interaction the personality of the individual grows; It prepares them for comprehensive, integrated, appropriate and balanced numbers to be useful and positive .individuals towards themselves and their society (Rabie and Muhammad, 2021: 62)

Education is one of the organized processes used by the teacher through which the student acquires the primary foundations of knowledge, and knowledge is a type used by the teacher, such as behavioral knowledge that examines the issue of training the :student on the correct handling, education requires the presence of three elements (teacher student educational material), while in teaching requires the presence of four elements: (teacher student educational subject classroom), and this is a clear difference .between education and teaching (Ibrahim, 2017: 35)

Teaching is one of the planned works, as it leads to students' learning in their various aspects and growth, and this system includes a set of purposeful activities carried out by the teacher and the student, and refers to what happened from the learning of ,students by transferring their attitudes and teaching and acquiring information experiences and skills from the teacher to them using advanced teaching methods and methods in order to help them learn and grow integrated and draw educational experiences, each according to his circumstances, preparations, abilities and tendencies (Al-Rubaie, 2018: 1), and requires the presence of a teacher and school equipment and other aspects of teaching performance and purposeful activities, and it is important in teaching that the teacher succeeds in guiding students, and arouses the desire for them in every educational situation, by being behind every educational situation offered to students a goal that the student seeks to reach, as well as the presence of such a purpose makes him feel that what he learns is valuable, and it is part of his life that needs to be known and familiarized, the teacher is the one who creates students More creative in different areas of life through his innovation and innovation in the performance of his profession, which encourages them to move forward towards more progress and .creativity (Ibrahim, 2017: 39)

Diversifying strategies is the key to improving learning (Attia, 2018: 23). One active learning strategy that can be used in all educational situations is no longer effective because it has long been believed that using diversity increases students' motivation and ,.education, positively affects their attention, and makes them more receptive to learning as this strategy works to teach and help students absorb information through active thinking and discussion among students, and the idea of the strategy is based on the teacher first asking a question to the students, and then asking one of the students to answer it, then the student asks another question and the student answers it, and so the

process continues for a certain period determined by the teacher, and the goal of this strategy is to help students confirm It also raises the level of activity and vitality of the class, and finally provides opportunities for students to practice eye contact and speak .confidently (Jeez, 2020: 69)

In light of the aforementioned, we discover that the question-and-answer method increases students' awareness of novel ideas and concepts. It is also a tactic used by teachers to encourage students to learn. The ultimate objective of using this method is to train students to connect what they learn with their prior experiences and to have a clear .understanding of what they are achieving. (Rashed, 2019: 90)

Saber thinking is a pattern of high-end dealing with the cognitive aspect of the content, as it works to develop the student's cognitive structure through his interaction with the educational content, which is prepared according to his scientific level and mental age, and helps the student to generate, analyze and simulate ideas, and also ,provides the student with a number of higher skills such as analysis and organization and contributes to training the student on the skill of searching, organizing and classifying knowledge in retrospective tables (Razouki and Suha, 2013: 51), and it is also a regular thinking, taking into account the laws and scientific rules through which the child reaches unknown facts from known facts, and from molecules to colleges, as well as being the .right way to solve problems (Al-Khidr, 2019: 102)

:Third: Research Objective

The research aims to identify the effectiveness of the question-and-answer strategy among first-grade intermediate students in Arabic language and their patient .thinking

. :Fourth: Research hypothesis

The researcher developed the following null hypothesis in order to accomplish the study's goal: (There are no statistically significant differences at the level of significance (0.05) between the average scores of the trial group students who will study the Arabic language subject using the question-and-answer passing strategy and the average scores of the control group students who will study the same subject using the .(standard method of the Saber thinking test

Fifth: Search Boundaries Search Boundaries

:The present study's limitations were restricted to

1. .**Human limit:** A sample of first-year intermediate students
2. **Spatial limit: Secondary and** middle schools affiliated to the Directorate of .Education of Babylon
3. .**Time limit:** First semester of the academic year)2023-2024(
4. **Cognitive limit:** A number of topics in the Arabic language book for the first .intermediate grade

:Sixth: Defining Terms

1. :**Effectiveness** defined by

I. (Willian, 2019) as: "the ability to achieve the desired end according to defined foundations, or the ability to achieve goals to reach the desired results and objectives to the highest possible degree" (Willian, 2019: 81)

II. Procedural definition: The degree to which first-grade kids' achievement and probe thinking are affected by the question-and-answer method can be quantified statistically using the results of the researcher's achievement and probing thinking .tests

2. :**The question-and-answer passing strategy** defined it

I. (Al-Saadi, 2020) as: "a set of sequential ideas in which the teacher presents by explaining the subject to be taught, while allowing the student to ask questions and pass them on to his colleagues for the purpose of presenting new ideas about .the subject" (Al-Saadi, 2020: 84)

II. Procedural definition: A set of steps implemented by the researcher when teaching first-grade intermediate students, as it is based on the principle of asking a question to students, then asking one of the students to answer it, after which the student asks another question and the student who avoided it answers, for the .purpose of knowing its impact on patient thinking

3. :**Patient thinking** he knew

I. (Al-Janahi, 2019) as: "in-depth and analytical thinking of phenomena, which requires high-end mental processes such as attention, perception, organization, ,recall of stored experiences, linking new experiences with the previous ones concentrating experience, recording and absorbing it, then integrating it with the cognitive structure, storing and recalling it when needed, and transferring or .generalizing it when faced with new experience" (Al-Janahi, 2019: 43)

II. **Procedural definition**: The amount of score obtained by first-grade students from the marks of their performance on the saber thinking test prepared by the ,researcher for mental processes consisting of: (remembering, abstraction generalization, discrimination, comparison and reasoning) and measured by .responding to the saber thinking test prepared for this purpose

2 LITERATURE REVIEW AND PREVIOUS STUDIES

:First: Constructivist Theory

Although constructivist theory in its now known sense has ancient historical roots extending back to the time of Socrates, it was crystallized in its current form in the light ,of the theories and ideas of many contemporary theorists such as Glassersfeld, Ausubel and Vygotsky, but it was Jean Piaget who gave constructivism its best form of how to acquire knowledge, while Ernst von GlassersfeldHe is the best contemporary constructivist theorist and the most wonderful of his books about it, as he is famous for saying: "The teacher's real interest in revealing what is going on in the minds of his students does not begin until he stops dealing with knowledge as if it were a commodity .given to students" (Al-Nubi, 2016: 151)

A number of contemporary philosophies have surfaced, each of which serves as a crucial foundation for instructional strategies employed in educational and educational processes. One such philosophy is constructivist philosophy, which serves as the basis for a variety of instructional strategies rather than a strict methodology. , and constructivist philosophy arose during the latter half of the twentieth century. It is a subset of the cognitive perspective, and educators often tend to move towards the so-called "constructivist camp" when they search for a more student-centered teaching model, and by summarizing the thinking of these educators, we find them focusing on education at the initiative of the student, the role of the teacher as a facilitator, focusing on exploration, building a flexible classroom, and carrying out simultaneous activities .(Attia, 2015: 207)

:Second: Active Learning

Active learning is a term characterized by comprehensiveness and breadth in its ,reformist connotation, as it is not limited to a strategy, method or method in education

but it expands to include many strategies that reduce the responsibility of the teacher and transfer it to the learner instead of taking the negative role, which is limited to receiving and memorization, and this focuses Although the learner is the center of the educational ,process and this role can only be fulfilled in the presence of a teacher who guides facilitates, and facilitates the educational process, active learning focuses more on .learning processes than on learning outcomes. (Ramadan, 2017: 19)

Additionally, since students engage in the application process rather than being restricted to the process of obtaining printed materials, everything that involves them actively and directly in the learning process, including reading, writing, meditation, and thinking, visual, audio and written information, and it is a way for students to learn in a way that allows them to actively participate in the activities that take place within the ,classroom so that this participation takes them beyond the traditional role of the learner who takes notes only to take the reins and take the initiative in various activities with his :colleagues. During the educational learning process in the classroom (Abu Al-Hajj, 2017 .(25

:Third: The strategy of passing the question and answer

3 CONCEPT

One of the active learning strategies, as the idea of this strategy is based on the teacher first asking a question to the students, then asking one of the students to answer it, then the student asks another question that the student who avoided him answers, and so the process continues for a certain period determined by the teacher, and the goal of the strategy is to help students confirm It also raises the level of activity and vitality of the class students, and finally creates opportunities for students to practice eye contact and speak with confidence, as the strategy is implemented at any time The teacher sees .it appropriate from the lesson (Ambo Saidi et al., 2019: 501)

4 Q&A STRATEGY STEPS

I. The teacher determines the topic of the lesson that he will teach to students and .plans it well

II. .The teacher asks a question and then asks one of the students to answer it

III. The teacher asks the student who answered to ask another question in the same lesson to a colleague and the student answers it, then this student asks another question and so the process continues until the teacher announces that the .implementation of the idea has stopped

IV. .The teacher continues the lesson if there is a sequel :Ambo Saidi et al., 2019) (501

:Fourth: Patient Thinking

It is a type of strategy that refers to the teacher's professionalism in asking and asking questions, or using phrases to urge the student to familiarize himself with the ,answer that he lacked or correcting his initial or original answer (his first answer) wrong incomplete, ambiguous, superficial or imaginary from giving evidence to prove the validity of his answer and mislead the dialogue between the teacher and the student with the initial or original answer until he knows the answer or corrects his response or ,completes it or clarifies or deepens it or proves its validity (Al-Sabawi and Khashman .(47 :2019

The thinking of the patient in its current sense has begun to work, and it is an educational model in which the student gets under the guidance of the student to find a solution to the problem and this model does not seek to reach one and always correct answers because the conclusions that can be reached are in the light of the information that is collected, and this does not mean getting a ready answer Taken from the book or the teacher, but it is the work to develop an answer by the student himself based on ,extrapolating information from the tangible to the abstract by observing the problem remembering it, classifying it, naming it, deepening it, comparing it, and then imposing .new hypotheses and verifying these hypotheses. (Jose, 2021: 54)

:Second Theme: Previous Studies

Table 1

Studies on probing thinking as a dependent variable

Key Findings	Statistical Methods	Search tool	Course Material	Sample size and sex	Grades	Objective of the study	Place of study	Researcher name and year of study	#
The superiority of the trial group students over the control group students in probe thinking	T – test for a coherent ,sample torsion equation Half-fractionation equation Cohen's equation for effect size	Sounding thinking	Language Arabic	55 students	High School	Identify the effectiveness of teaching with the Grasha strategy among secondary school students in Arabic language and their probing thinking	United States of America	Joseph, 2016	1
The superiority of the trial group students over the control group students in the development of sounding thinking	Cooper's equation of ,agreement Holsti ,equation alpha-Cronbach equation, t-test equation of two independent samples	Sounding thinking	Language Arabic	69 students	Middle School	Identify the effect of Daniel Neal's model on Arabic language and the development of properous thinking among middle school students	United States of America	William 2019	2

5 MATERIAL AND METHODS

First: Research Methodology: The researcher adopted the trial method in her research because it is the appropriate approach to the procedures and objective of the .research

Second, as indicated in Table (2), the researcher used a trial design with partial control of the two equivalent groups (trial and control) and a post-test to assess the ..thinking sounding

Table 2

Trial Design of Research

The Collection	Independent variable	Dependent variable
Trial	Question and answer pass strategy	Sounding thinking
Control	Five-Year Plan	

Third: Research Population and Sample

6 RESEARCH POPULATION

The research population was all male intermediate and secondary day schools that were located in the center of Babylon Governorate. This was during the 2023–2024 academic year and assuming that each school had not less than two first intermediate classes. The researcher, to derive the sample of research from the original population selected for the study, visited the General Directorate of Education in Babylon Governorate to obtain the official list of the names of boys' intermediate and secondary .day schools

7 RESEARCH SAMPLE

:The sample of the current study can be divided into the following parts

A. School Sample

The researcher selected 20 schools after determining the location of the research population. Purposefully, the researcher chose the school Rabaa Al-Adawiya :Intermediate School for Girls. This was based on the following

- Cooperation of the school principal and staff with the researcher to facilitate the implementation of the experiment in support of the educational process and to .recognize its outcomes
- Most students were from the surrounding area, which could support a certain logical similarity in the culture, economic status, and social environment of the .sample that would be selected for the two groups of the study as the study sample
- The small number of students in each classroom facilitated the process of .applying the experiment

B. Student Sample

I, in my capacity as a researcher, presented an official ID to the administration of Al-Khulood Intermediate School for Girls based on the letter issued from the General Directorate of Education in Babylon Governorate / Department of Agency and preparation, and the school administration was cooperative and helped in conducting the study. This section of the school, it is worth noting, had two first intermediate classes. In this case, the first class was selected randomly to be the sample in which the students would study in accordance with Arabic as question and answer to pass and represent the experimental group as section "A". However, the second section "B" will represent the control group in which the students study the same subject using traditional teaching methods. The number of students for both classes before removing the students who did .not pass was 70 students (35 students in Section "A", and 35 students in Section "B"(For this study, the number of students that remained are 61. The removal of the weak students comes in light of the fact that they had access to learn what will be taught as they will be at risk of affecting the results of the study. However, the decision in this study was that they must remain in the classroom throughout the teaching period for reasons of non-deprivation of learning in class as well as to preserve health for both the .classrooms and the school

Fourth: Equivalence of the Two Research Groups

The researcher assumed that the two research groups could be made equivalent .in a number of factors that may intervene in the effect of the results of the experiment These students were in the same social and economic environment, studied at the same school, and were all females. The researcher, however, had to verify the equivalence of ::these students statistically by the following variables

Table 3

Equivalence of the two research groups in some variables Fifth: Controll

Variable	Arithmetic mean	Number	The Collection	Significance level	T-value		Degree of freedom	Standard deviation
					Tabular	Calculated		
Trial	Non D	163.369	31	Chronological age	2.000	1.598	59	5.021
Control		163.005	30					4.959
Trial		65.258	31	Language Test Arabic		0.957		12.958
Control		66.004	30					12.365
Trial		21.248	31	IQ test		0.820		4.205
Control		20.147	30					3.957
Trial		10.659	31	Previous information		0.940		3.002
Control		11.092	30					3.210
Trial		11.020	31	Sounding thinking		1.259		3.050
Control		11.958	30					3.441

Fifth: Controlling Extraneous Variables

While in the present research, the researcher made every effort to equate the two research groups in some of the variables presumed to affect the accuracy of this research result, further attempts were made to decrease the effect of some of the extraneous .variables which might have interfered with the progress and validity of the experiment These variables included: sample member selection, events, attrition, maturation, the measurement instrument and the experiment itself. This facilitated the development of an implementation plan that allowed interventions to heavily control such variables as .much as possible in order to maintain the purity of the findings

Sixth: Research Requirements

Before the experiment works, the researcher needed to prepare the requirements that needed to be prepared before carrying out the experiment. These included the :following

1. **Determining the Instructional Material**

The researcher determined the teaching content to be taught to the experimental and control class students that included in the period of the experiment. It included some .of the topics from the Arabic language curriculum of first intermediate students

2. Formulating Behavioral Objectives

,.The researcher prepared 130 behavioural objectives from the four levels, i.e remembering, understanding, application, and analysis of Bloom's Taxonomy. These goals were then used to seek out approval and validity from a group of educational and pedagogical experts to ensure that they were appropriate and applicable to the material being taught. Following reflection and analysis of the experts feedback, the objectives .were approved or retained in their final form as 130 behavioral objectives

3. Preparing Teaching Plans

The researcher have a set of teaching plans for the Arabic language topics that are part of the experiment. The plans were generated based on the specific content from the textbook, the behavioral objectives, and the instructional strategy that was assigned to the group. Therefore, plans for the experimental group were designed according to the question-and-answer passing strategy, and plans for the control group were prepared .according to the conventional teaching method

Two model lesson plans were presented to a panel of specialists in education and teaching methodology, as well as Arabic language supervisors and teachers, for the purpose of obtaining their opinion, observations, and suggestions, to ensure their quality and appropriateness. Following this feedback, the researcher made the required .modifications and then the plans were deemed appropriate and actionable

Seventh: Research Instrument

Building a Probe Thinking Test

Due to the nature of the current research, the construction of a test to measure the degree of possession of probe thinking skills in the Arabic language of first intermediate grade students. To this end, the researcher prepared an objective multiple-choice test, as it is a loading, and a statistically suitable form for measuring and identifying the wide .individual differences between skills (Mahmoud Zeitoun, 2005, p. 391)

The following steps were taken by the researcher in carrying out the construction :of the test

1. Understanding The Purpose of Test

The experimental design of the test: It was built for first intermediate grade .students who were the research sample, which is the two levels of probe thinking

2. Constructing the Test Items

Part 3: Forming the test items: The researcher formed the test items based on the relevant educational literature on thinking in general, and the study and references addressing thinking skills in different fields and educational stages in light of the three .probe thinking skills adopted in this study

In line with this, a total of 28 multiple-choice items were developed. Each item has four alternatives, out of which the student has to choose the closest one to correspond to the item asked. In developing these items, the researcher has considered scientific correctness, linguistic clarity, and instructional relevance as well as the appropriateness .of the cognitive level of first intermediate grade students and ambiguity

Table 4

Main and minor probing thinking skills and number of test items

.Paragraphs No	Sub-Skill	#	Main skill	#
4	Enumeration and remembrance	1	The skill of understanding the concept	
3	Classification in groups	2		
3	Naming and addressing	3		
3	Identify key relationships	4	The skill of interpreting information	
3	Discover new relationships	5		
3	Access inferences	6		
3	Predicting results and formulating hypotheses	7	The skill of applying the principles	
3	Explain predictions and support Hypotheses	8		
3	Verification and verification of predictions or hypotheses	9		

3. Formulation of Test Instructions

The students were prepared for the test with clear and explicit instruction on how .to respond to the test items and how to minimize mistakes that could affect their scores ,Among these were detailed instructions regarding the amount of time allotted for the test along with a series of crucial warnings that students had to heed as they marked their .answers on the answer sheet affixed to the test

4. Establishing Scoring Instructions

To assist in the scoring process, the researcher prepared a model answer key of the test items used. The answers were scored right with 1 point and wrong, omitted or

marked on 2 alternatives with 0 points. Thus, a score of 0 to 28 marks was possible on .the test

5. Validity of the Test

.As a measure to ensure the validity of the test, the researcher used face validity Initially, the test was administered to a number of Arabic language teaching methods experts, specialists, and arbitrators in order to assess the suitability, validity and relevance of the items to the intended construct to be measured. The agreement rate for any test item, which wasused as a criterion for validity for item, 0.80 or higher. All 28 items were .finally retained in the final form of the test

6. Pilot Testing of the Probe thinking test

:The probe thinking test was conducted on a pilot basis in two phases

A. First Pilot Administration

A pilot for the test administration was performed to ensure the items were understandable again, instructions were appropriate, and test completion time was adequate. In aiming to achieve this, the researcher implement the test for first, an .establishing run for 34 students of first intermediate grade

The objective of this stage was to identify ambiguous items and ascertain whether the instructions were clear enough. We scheduled an appropriate date for the test to be administered in conjunction with the school administration. The completion time was measured by noting the time taken for the first student to complete it, and then the .completion time for subsequent students, to generate the average time taken to respond .Results: The median time to taking the test was 39 minutes

B. Second Pilot Administration

Administration of second pilot was conducted on 100 first intermediate grade students. Stage 3–Statistical analysis of the test items, including item difficulty, item discrimination and distractor effectiveness

7. Statistics of the Test Items

To facilitate the statistical analyses required for the study, the researcher scored the responses of 100 students from the pilot sample and ordered their scores from lowest .to highest scores, 5 being the lowest score and 25 being the highest score

.I .Difficulty of Test Items

For each objective test item, the difficulty coefficient was computed. These findings found that the item difficulty values were between 0.23 and 0.69 which indicate .an appropriate item difficulty range

II. How Well the Test Items Can Differentiate Learners

Statistical formula for the discrimination index for each item. Results revealed that the discrimination index of the items was between 0.29 (acceptable discrimination) .to 0.77 (good discrimination) for high- and low-performing students

III. Effectiveness of the Distractors

We also assessed the functioning of the distractors for each of the 28 items. The results showed that all values of the distractor were negative, indicating that these alternatives drew more responses from the lower-performing group than from the higher-performing group. All the distractors were kept as is, because this outcome was a proof .of the effectiveness of the distractors

8. Construct Validity

Not only to establish face validity but also to give evidence of construct validity of probe thinking test (Pinto et al., 2011). The second pilot sample, previously administered for performing item analysis, provided the scores to analyse internal .consistency of the test for this purpose

I. Predictive Relationship of Items to the Total Test

For the second pilot sample of 100 students it was therefore possible to find the degree to which each item score correlated with the total test score (a query referred to as item-total statistics in SPSS — a social science computer program that stands for the Statistical Package for the Social Sciences). To determine the correlation between the total score of the test and the score of each individual item, the Pearson correlation .coefficient was calculated for each item

The correlation coefficients of the items were 0.25–0.78, all were statistically significant and showed that the items were sufficiently homogeneous to infer that they .are all measuring the same construct of the test. Hence, all 28 items were kept

Correlation coefficients of each item score to the total test score are shown in .table)5(

Table 5

Correlation between the Item Score and the Skill's Total Score

Link	t	Link	t	Link	t	Link	T
0.48	22	0.47	15	0.38	8	0.50	1
0.32	23	0.65	16	0.41	9	0.47	2
0.30	24	0.78	17	0.57	10	0.49	3
0.52	25	0.34	18	0.69	11	0.38	4
0.42	26	0.25	19	0.74	12	0.41	5
0.40	27	0.31	20	0.66	13	0.33	6
0.47	28	0.57	21	0.58	14	0.47	7

Internal consistency validity of test: statistically, to determine the internal consistency validity of the test, the researcher went on calculating the Pearson correlation coefficient and also the level of statistical significance between the score of each item of .each skill and the total score of that skill

The results showed that all of the correlation coefficients of individual item scores and total skill scores were significant ($p < 0.05$). This finding indicates that there was a valid relationship between the core skills the test items were designed to assess and that probe thinking as a skill within the domain was a true test of construct at the Arabic .language subject level

Therefore, the test was found to have a reasonable level of construct validity because its items reasonably level of internal consistency measures the intended .dimensions of probe thinking

The correlation coefficients between the sub-items scores and the total score of :the relevant skill are shown in Table)6(

Table 6

Correlation coefficients between paragraph grade and skill score

The skill of understanding the concept					
Naming and addressing		Classification in groups		Enumeration and remembrance	
Link	t	Link	t	Link	T
0.36	1	0.61	1	0.52	1
0.51	2	0.44	2	0.44	2
0.74	3	0.38	3	0.65	3
				0.66	4
The skill of interpreting information					
Access inferences		Discover new relationships		Identify key relationships	
Link	t	Link	t	Link	t
0.41	1	0.74	1	0.66	1
0.48	2	0.65	2	0.64	2
0.65	3	0.49	3	0.35	3
The skill of applying the principles					
Verification and verification of predictions or hypotheses		Explain predictions and support Hypotheses		Predicting results and formulating hypotheses	
Link	t	Link	t	Link	t
0.51	1	0.56	1	0.51	1
0.59	2	0.52	2	0.59	2
0.52	3	0.59	3	0.57	3

I. The relationship between the skill score and the test's overall score: Since the Pearson correlation coefficient was used to calculate the correlation coefficients between :each skill's score and the test's overall score, Table (7) demonstrates that

Table 7

Correlation coefficients between the test's overall score and the skill score

The skill of applying the principles		The skill of interpreting information		The skill of understanding the concept	
Link	Skill	Link	Skill	Link	Skill
0.83	Predicting results and formulating hypotheses	0.87	Identify key relationships	0.77	Enumeration and remembrance
0.85	Explain predictions and support Hypotheses	0.74	Discover new relationships	0.81	Classification in groups
0.86	Verification and verification of predictions or hypotheses	0.82	Access inferences	0.79	Naming and addressing

Test stability: The test's internal consistency stability was determined by the .9 :substantive paragraphs utilizing the following two methods

A. Half-segmentation method: The researcher calculated the Pearson correlation coefficient between the test's two halves, which came out to be 0.802. After .applying the Siberman-Brown equation, the result was 0.884
B. Method (Cauder-Richardson 20): After extracting the stability coefficient, the researcher discovered that it equals (0.859). Eighth: Statistical Methods: The researcher processed the data for the current study using statistical techniques ..with the aid of the statistical application (SPSS)

8 RESULTS AND DISCUSSION

This chapter deals with the presentation of the results reached by the researcher according to the objectives and hypotheses of the research, and the interpretation of the .results, as well as each of the conclusions, recommendations and proposals

First: Presentation of Results

The null hypothesis stated that there are no statistically significant differences at the (0.05) level of significance between the mean scores of the experimental group ,students, who studied Arabic language using the question-and-answer passing strategy and the mean scores of the control group students, who studied the same subject through .the conventional method, on the probe thinking test

,To test the validity of this hypothesis, the researcher calculated the mean scores variance, and standard deviation for both research groups. The findings showed that the experimental group, which was taught according to the question-and-answer passing ,strategy, obtained a mean score of 20.358, with a standard deviation of 4.598. In contrast the control group, which studied according to the usual teaching method, achieved a mean score of 14.997, with a standard deviation of 4.957. To determine whether the difference between the two groups was statistically significant, the researcher applied the t-test for two independent samples. The results indicated the presence of a statistically significant difference between the two groups, as the calculated t-value (5.090) exceeded .the tabulated t-value (2.000) at the 0.05 level of significance and 59 degrees of freedom

This result indicates that the students in the experimental group outperformed .those in the control group on the probe thinking test

Table 8

Presents the mean scores, standard deviations, variances, and t-value for the probe thinking test variable

The Collection	Number	Arithmetic mean	Standard deviation	Degree of freedom	T-value		Significance level
					Tabular	Calculated	.Sig
Trial	31	20.358	4.598	59	2.000	5.090	
Control	30	14.997	4.957				

8.1 Result interpretation and effect size

The results showed that students in the experiment study class who were taught with the question-and-answer passing strategy to students in the control study class who were taught the same learning material using the conventional method scored better on the probe thinking test. As a result, this leads to a rejection of the second null hypothesis in favor of the alternative hypothesis. The alternative hypothesis indicates that students allowed to practice the probe thinking through the experiment will have the mean number of tests correct that is significantly different than the students in the control (at the 0.05 .level) probe thinking test scores

8.2 Strength of the Independent Variable

Since it was necessary for the researcher to measure the effect of teaching strategy (independent variable) on probe thinking performance (dependent variable), Cohen's d was calculated which showed that the difference was significantly large (Cohen d: 0.958), considered a large effect (Cohen, 1992). Simply put, it indicates that the question-and-answer passing strategy has a large positive effect on probe thinking skills development .in the experimental group students

The results from the effect size as shown in Table (9) also illustrate the size of :.the impact of the teaching strategy on students' performance

Table 9

The size of the impact of the independent variable in the sounding thinking variable

The amount of impact size	Impact size value (d)	Dependent variable	Independent variable
big	0.958	Sounding thinking	Question and answer pass strategy

Second: Interpretation of the results: The result indicated that there is a statistically significant difference between the average scores of the trial group students ,who studied the language subject Arabic the strategy of passing the question and answer and the average scores of the control group students who studied the same material in the ,usual way in the sounding thinking variable for the benefit of the trial group students :and the researcher believes that this is due to

I. The use of the question-and-answer strategy during the teaching of the subject gave an incentive and a sense of competition with students positively through the use of knowledge channels or the five senses of students, and the more the student ,uses more than one sense, the more he interacts with the surrounding experiences which makes this environment a source of thinking, experience and learning, and .this helped increase their probe thinking

II. One of the characteristics of the question-and-answer strategy is the interpretation of the information that the student deals with, by identifying things and linking them with their preaching, and that the description of anything is not complete and correct unless we know the relationships that bind him with other things, and .this helped in increasing their patience thinking

9 CONCLUSIONS

In accordance with the results of the analysis of the first hypothesis, it can be concluded that the teaching of first-grade intermediate students using the question-and-answer passing strategy is effective in developing their performance of probe thinking .skills in the Arabic language

10 RECOMMENDATIONS

:Based on the determinations of the examine, the researcher suggest the followings

1. Add contemporary strategies for teaching, such as the question-and-answer passing strategy, in the courses of teaching methods in faculties of education and .faculties of basic education
2. Provide professional development for teachers around skills in probe thinking, as well as a thorough teacher's guide to instilling them in the classroom. This will allow teachers to practice probe thinking strategies in front of students and also model these thought processes, impacting their own thinking and development as .learners

Suggestions for Further Research

Following the outcomes of the current study, the researcher proposes further :research on the follow-up areas

1. Using the question-answer passing strategy to study their impacts on different cognitive and thinking variables e.g. gender differences, critical thinking, creative .thinking, productive thinking and divergent thinking
2. Conduct studies on different subjects and grade levels to check if their findings .are generalizable and if the strategy is effective in other learning conditions

REFERENCES

Abou El Haj, S. A. Active learning strategy between theory and practice. Debono Center for Teaching Thinking, Oman, 2017

Al-Dulaimi, T. A. A. et al. Education: Founded by its philosophy and its impact on the fields of sustainable development. Dar Ghaida for Publishing and Distribution, Oman; Jordan, 2020

Al-Janahi, S. Patterns of thinking between theory and practice. 1st ed. Dar Al-Manhaj for Publishing and Distribution, Oman; Jordan, 2019

Al-Khodr, O. H. Thinking: Patterns – methods – skills. 1st ed. Afaq Library for Publishing and Distribution, Oman; Jordan, 2019

Al-Nubi, G. H. Constructivist theory: A contemporary approach to improving the learning environment. Alam Al-Kotob for Publishing and Distribution, Oman, 2016

Al-Rubaie, M. D. Teaching methods and methods. 1st ed. Dar Al-Sadiq Cultural Foundation, Babylon, Iraq, 2018

Al-Saadi, H. H. M. The effective teacher and his teaching strategies and models. 2nd ed. Al-Shorouk Library for Printing and Publishing, Baghdad, 2020

Al-Sabawi, F. K. H.; Al-Jarjari, K. H. A. Patient thinking and its relationship to cognitive beliefs among university students. *Journal of Educational and Psychological Sciences*, 19(11), 2019

Ambo Saidi, A. B. K. et al. Teacher strategies for effective teaching. Dar Al-Masirah for Publishing and Distribution, Oman, 2019

Attia, M. A. Constructivism and its applications (modern teaching strategies). Dar Al-Masirah for Publishing, Distribution and Printing, Oman, 2015

Attia, M. A. Active learning: Modern strategies and methods in teaching. 1st ed. Dar Al-Shorouk for Publishing and Distribution, Oman; Jordan, 2018

Ibrahim, J. H. Integrating technology with education. 1st ed. Dar Al-Assar Al-Alami for Publishing and Distribution, Oman; Jordan, 2017

Jeez, B. Question-and-answer passing strategy. Al-Raqqaq Library for Publishing and Distribution, 2020

Jose, B. Probing thinking between theory and practice: An analytical study in Clamps. Bursa, 2021

Joseph, R. The effectiveness of teaching with the Grasha strategy among secondary school students in physics and probing thinking. United States of America, 2016

Mazen, H. E.-D. M. Effective teaching design technology between thought and application. Dar Al-Ilm for Publishing and Distribution, Cairo, Egypt, 2015

Rabie, M. D.; Salem, M. Teaching methods and methods. 1st ed. Dar Al-Sadiq Cultural Foundation, Babylon, Iraq, 2021

Ramadan, M. H. Active learning strategies in character building program. Academics for Publishing and Distribution, Oman, 2017

Rashed, H. The strategy of passing the answer and the question in the active learning of the constructivist theory. *Journal of Educational and Human Sciences*, 23(65), 2019

Razouki, R. M.; Abdul Karim, S. I. Thinking and its types (patterns). Part 1. Dar Al-Kutub and Documents, Baghdad, 2013

Willian, T. Investigating the impact of instruction in mixed ability classrooms. *International Congress for School Effectiveness and Improvement*, 2019