

## Strategic Effectiveness: Search - Solve - Create - Participate - Evaluate - in the Middle School Students' Achievement on Arabic

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### Abstract

*This study aims to determine the effectiveness of various strategies—search, solve, create, participate, and evaluate—in improving middle school students' achievement in Arabic. The experimental group was designed with partial control, following quasi-experimental design phases to meet research objectives. Before implementing the experiment, the researcher ensured comparable competencies between the two groups, constructed an Arabic achievement test, and confirmed its psychometric qualities. After implementation, the researcher also conducted additional tests. The study discovered that using the search-solve-create-participate-evaluate strategy in teaching Arabic raises academic achievement among sixth-grade middle school students. The experimental group outperformed the control group in the Arabic language achievement test. This demonstrates the effectiveness of the search-solve-create-participate-evaluate strategy in enhancing middle school students' Arabic language achievement.*

**Keywords:** Search, Solve, Create, Participate, Middle School, Evaluate

### Introduction

Despite significant progress in teaching methods and strategies in Iraq, they still lag behind those in Arab and foreign countries. Therefore, there is an urgent need to develop teaching methods and strategies, especially in the Arabic language.

Academic achievement in the Arabic language at the preparatory stage is continuously declining. This can be clearly seen in the sixth-grade results, where students face multiple problems. These issues can be attributed to teachers' reliance on traditional teaching methods, which have led to students becoming disengaged from the material and achieving poor academic results.

The research problem can be summarized by the following question: What is the effectiveness of searching, solving, creativity, participating, and evaluating in achieving middle school students' achievement in the Arabic language?

The importance of the current research can be summarized as follows:

- The significance of active learning, a modern trend in contemporary teaching methods and strategies, which is of great interest to educators.
- The practical importance of teaching strategies based on active learning in achieving high levels of achievement and developing subject concepts.
- The significance of the strategy (search - solve - creativity - participate - evaluate) as one of the active learning strategies that has not received attention until now. The researcher did not find any previous local or Arab studies related to this subject.
- The value of the Arabic language subject among preparatory school subjects lies in its ability to develop learners' language skills.

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## Research Objective

The current study aims to assess the effectiveness of the search-solve-creativity-participate-evaluate strategy in enhancing middle school students' achievement in the Arabic language.

Based on the aforementioned objective, the following hypothesis is formulated: "There are no statistically significant differences between the experimental group, which is taught using the search-solve-creativity-participate-evaluate strategy, and the control group, which is taught using the traditional lecture method, in the post-application results of the academic achievement test for the Arabic language."

### *Effectiveness*

(Qatami, 2001) defines it as the proper performance of a behavior or action (Qatami, 2001: 20). Additionally, (Qatami, 2004) considers it a measurable comparison between expected outcomes and observed results (Qatami, 2004: 475). (Attia, 2008) presents it as the capability to accomplish something, often assessed by examining its impact on the surrounding environment; thus, it encompasses the potential for action (Attia, 2008: 61).

The researcher adopts the latter definition as the theoretical framework for the current research.

### *Strategy*

Adam (1992) defines it as a series of actions conducted by the teacher at a specific time and place to achieve specific outcomes related primarily to the development of learners' cognitive processes (Adam, 1992: 8). On the other hand, Al-Rawashdeh (2001) defines it as the organized planning of a set of procedures through which the teacher's work is carried out in the classroom, encompassing all processes within the educational framework (Al-Rawashdeh, 2001: 279).

The researcher has adopted the latter definition as the theoretical framework for the current research.

### *Search - Solve - Create - Participate - Evaluate*

Defined by (Juma, 2010): This is one of the teaching strategies based on active learning processes, where the learner is the central focus of educational efforts. This is achieved by empowering the learner to take responsibility for their learning processes, utilizing scientific research skills for exploration, evaluation, and analysis of knowledge, fostering creativity and innovation in proposing solutions, and finally, engaging peers in the evaluation and sharing of solutions and expertise (Juma, 2010: 28-29).

### *Achievement*

Defined by Desouki, 1988: The level of study and education attained by the learner in a specific subject (Desouki, 1988: 27). And by Eyada (2001): The knowledge and skills an individual can attain after being taught a particular subject (Eyada, 2001: 146).

### *Theoretical Framework and Previous Studies*

#### *The Concept of Active Education*

Active learning is an effective form of learning wherein the learner engages in research and information-seeking activities through classroom and extracurricular activities, as well as through rigorous and scientific knowledge pursuit (Al-Jamal, 1999: 34).

It is portrayed as both a teaching method and a learning approach, involving activities and skills that enable the learner to fully immerse in knowledge. In this type of learning, the teacher's role is limited to providing guidance and direction, without directly imparting knowledge to the learners (Saadeh, 2006: 23).

Active learning is characterized by learners independently and subjectively accessing knowledge under the general and detailed supervision of the teacher, without the imposition of knowledge or information on the learners' minds (Bdeir, 2008: 39).

The necessity for active learning has emerged due to various factors, with one of the most significant being the confusion experienced by learners after traditional educational settings. This confusion indicates a lack of new and genuine integration of information in their minds following conventional education. Bdeir (2002: 45) describes learners' activities in traditional methods as follows:

The need for this learning approach has become urgent due to several factors, including confusion in the educational environment and classroom setting experienced by learners, teachers, and administrators. Additionally, there is a tendency to adhere to traditional learning concepts without considering contemporary, modern learning approaches (Bdeir, 2002: 45).

#### *Foundations Of Active Learning*

Active learning is founded on several principles, as outlined by Bdeir (2008: 49):

- Stimulating learners' thought processes.
- Building on the learner's previous experiences.
- Listening to the learner with tranquility and patience.
- Assisting the learner in selecting the work system and rules.
- Involving learners in setting educational goals.
- Utilizing multiple sources of information.
- Demonstrating great confidence in learners by the teacher.

#### *Active Learning Objectives*

Saadeh (2006: 33) outlined the goals of active learning.

Active learning aims to achieve several goals, which can be summarized as follows:

- Assisting individual learners in developing their thinking skills.
- Introducing diversity in the educational activities and processes used to achieve set educational goals.
- Encouraging continuous questioning by the teacher from individual learners.
- Assisting learners in achieving high levels of learning in terms of analysis, synthesis, and evaluation.
- Teaching learners the skills of interacting with their peers.
- Providing educated individuals with real-life experiences.
- Enhancing self-confidence in various areas.

By presenting these goals related to active learning, the researcher believes they focus on the learner, making them the focal point of the educational process. The learner acquires knowledge and skills, transforming negative attitudes into positive ones. This approach also turns the learner into a knowledge seeker rather than a passive recipient of information.

### *Characteristics of Active Learning*

Active learning is an original form of modern learning in which the learner seeks maximum growth in various individual aspects. These characteristics can be summarized as follows (Al-Shammari, 2011: 77):

- Participation in the educational process goes beyond indoctrination and memorization.
- More emphasis is placed on developing learners' skills than on literal knowledge transfer.
- Encouragement of learners to rely on a variety of sources of knowledge.
- Development of higher mental abilities such as analysis, synthesis, and evaluation in learners.
- Increased retention of knowledge and information by students for as long as possible, both inside and outside the classroom.

### *Active Learning Features*

Active learning offers numerous advantages, encompassing academic, interpersonal, and communication aspects among learners and between learners and their teachers. These benefits, as highlighted by Al-Shammari (2011: 56) and Ramadan (2011: 7), include:

There are several advantages associated with active learning and its functionality in the educational process, which can be summarized as follows:

- Active learning makes the learning process enjoyable and engaging for learners.
- Constructivist learning cultivates a deep-seated desire for learning.
- Development of learners' scientific research skills.
- Provision of learners with authentic and natural situations relevant to the educational process.
- Discovery of the inclinations and aspirations of educated individuals.

### *Barriers To Active Learning*

There is a set of obstacles that hinder the achievement of active learning goals, as outlined by Saadeh (2006: 40) and Gibran (2002: 28).

#### *First: Resistance To Change*

When management seeks to implement active learning, it is expected that resistance to this type of learning will occur. This resistance may stem from the prevalence of traditional learning methods, fear and anxiety about the change process, as well as a lack of motivation for implementing active learning.

*Second: Obstacles To the Application of Active Learning*

Several obstacles hinder the implementation of active learning. These include a lack of allocated time for learning, students' difficulty in understanding this type of learning, and a lack of resources and material capabilities required for active learning.

*Third: Obstacles Related to The Teacher*

Many teachers have been accustomed to traditional teaching methods for years. As a result, there is often a lack of genuine desire to develop teaching methods, and there may be weaknesses in both scientific and practical capabilities. Most teachers are also afraid of applying modern teaching strategies due to fear of failure.

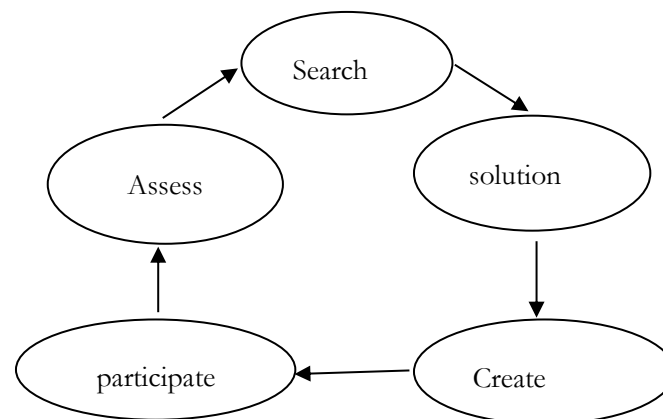
*Fourth: Obstacles Related to The Learner*

Learners are also accustomed to traditional teaching methods, making it challenging to convince them of the benefits of modern techniques. They may suffer from poor self-confidence when it comes to using modern, active learning methods.

*The Second Section: Strategy (Search - Solve - Create - Participate - Evaluate)*

The strategy (search - solve - create - participate - evaluate) aims to make the learner the central focus of the educational process by activating their roles. The learner is responsible for their learning, exploration, and finding appropriate solutions to educational problems. This approach encourages creativity, innovation, and collaboration with others to acquire knowledge.

This strategy is based on five phases (Juma, 2010: 28-29) and is illustrated in the following figure:



**Figure (1): Active Learning Strategy.**

*First Stage: Search*

In this stage, learners are guided to search for information in academic or non-academic books relevant to the subject of study. The teacher's role is to assist learners in formulating questions and engaging in discussions.

*Second Stage: Solve*

Following the search phase, learners seek solutions to educational situations and problems using various sources such as the Internet, books, newspapers, and magazines.

*The Third Stage: Create*

Information gathered is organized systematically, often using tables or graphs. Learners analyze the knowledge according to Bloom's higher levels of analysis, synthesis, and evaluation, leading to the formulation of conclusions.

*Fourth Stage: Participate*

Learners present their findings to their classmates for discussion and exchange of ideas.

*Fifth Stage: Evaluate*

Each group evaluates its findings and prepares a brief report on the addressed problem. This stage typically concludes with learners posing a new question for discussion in subsequent lessons, thus forming a continuous cycle that does not end.

In the final stage, all previous stages and steps are evaluated. Learners may write reports on each step, including its advantages and disadvantages. This process helps formulate solutions to the problem with a high level of confidence.

*Second: Related Research*

The researcher did not find previous studies related to the strategy (search - solve - creativity - participate - evaluate). Therefore, previous studies that rely on active learning will be presented as follows:

Study (Ahmed Diah Ahmed, 2019): The Effect of the 4×4 Strategy on the Achievement of Fourth-Grade Literary Students in Arabic Grammar.

The study aimed to identify the impact of the 4×4 strategy on the achievement of fourth-grade literary students in Arabic grammar. The study sample consisted of 64 students distributed across two groups. The researcher randomized the groups, prepared the teaching plans, and developed a post-test, which was reviewed by experts. The post-test was then administered to the research sample. The results, analyzed using the T-test, showed a statistically significant difference at the significance level of 0.05 between the average scores of the experimental group students and the control group. The experimental group students, who studied Arabic grammar using the active learning strategy 4×4, performed better. This finding highlights the importance of updating teaching methods to keep pace with modern learning theories and techniques (Sabri, 2003: 11; Al-Hallaq and Mazyad, 2008: 11; Al-Tai Study 2012; Arnaout Study 2012). The researcher conducted this study to complement previous research and address weaknesses in the Arabic grammar curriculum.

Study (Saqr Muhammad Shia Faisal, 2022): The Effect of Employing a Strategy (Through - Plans - Evaluate) on the Acquisition of Arabic Grammar Among Fifth-Grade Students.

The current research aims to identify the effect of employing a strategy (through the plans of evaluation) on the acquisition of Arabic grammar by fifth-grade primary school students. To achieve this goal, the researcher formulated the following null hypothesis: "There is no statistically significant difference at the 0.05 level between the average scores of the students in the experimental group, who studied Arabic grammar strategically (through the plans of evaluation), and the average scores of the students in the control group, who traditionally studied the same material."

The researcher used an experimental design with partial control, involving an experimental group and a control group with a post-test. The findings supported the idea that the strategy (through the plans of evaluation) is effective in enhancing student achievement and developing their abilities in the subject of Arabic grammar. The researcher recommended that teachers be encouraged to train in implementing

strategic steps (through the plans of evaluation) and suggested conducting a comparative study between this strategy and others based on active learning theories in different stages of study.

### *Section Two: Research Procedures*

#### *First: Research Methodology and Experimental Design*

The quasi-experimental design is considered one of the most essential and well-known scientific research methods in educational and psychological sciences (Melhem, 2002: 404). This method is flexible enough to allow researchers to achieve their goals effectively (Al-Assaf, 2010: 297).

For the first experimental experiment related to applying the strategy (search - solution - creativity - participate - evaluate), the researcher chose the quasi-experimental design with partial control. Two groups were selected: the experimental group, which received instruction according to the chosen strategy, and the control group, which was taught using the traditional lecture method. At the conclusion of the experiment, a post-test was administered to both groups, as illustrated in the table below:

#	Independent variable	Groups	Variable
1	Strategy Search - Solve - Create - Participate - Evaluate	Experimental	Collection
2	Lecture method	Adjuster	

**Table (1): Experimental Design of Research**

#### *Second: Research Community*

The current research community comprises middle school students in the Karkh II Directorate of Education in Baghdad for the academic year 2023-2024.

#### *Third: Research Sample*

The researcher selected a sample of sixty sixth-grade middle school students from Nebuchadnezzar School, who were randomly divided into two groups for the current research, as shown in the following table:

The Collection	Future variable	Total Number
Experimental	Strategy Search - Solve - Create - Participate - Evaluate	30
Adjuster	Lecture	30

**Table (2) Shows the Sample Individuality According to The Two Research Groups.**

#### *Fourth: Equivalence Of the Two Research Groups*

Among the experimental research procedures, it is necessary to adjust the variables involved in the experiment to ensure the equivalence of the two research groups. The variables expected to affect the experiment are selected through a review of previous studies. Accordingly, equivalence was established in the internal variables:

*Age Parity*

The researcher verified the equivalence between the two groups in terms of the estimated age in months using the independent samples T-test, as shown in the following table:

referee	Significance level	Value -T-		Standard deviation	Arithmetic average	Number	The Collection
		Tabular	Calculated				
Non-function	0.05	2.02	0.765	3.125	216.43	30	Experimental
				3.223	216.32	30	Adjuster

**Table (3): Equivalence Between the Two Groups in Chronological Age**

The table above clearly demonstrates equivalence between the two groups regarding the estimated age in months, with the calculated T-value being smaller than the tabular T-value.

*Equivalence In the IQ Test:*

To ensure the equivalence of the two groups in the IQ test variable, the researcher employed the Rafn progressive matrices test and administered it to both groups. The researcher then used the T-test for two independent samples, as shown in the following table:

referee	Significance level	Value -T-		Standard deviation	Arithmetic average	Number	The Collection
		Tabular	Calculated				
Non-function	0.05	2.02	0.658	2.325	43.55	30	Experimental
				2.12	43.14	30	Adjuster

**Table (4): Equivalence Between the Two Groups in The IQ Test**

It is clear from the table above that both groups are equivalent in the Raven IQ test, as the calculated value was not statistically significant.

*Equivalence In the Pre-Achievement Test*

The researcher verified that both groups had a similar achievement level in the pre-achievement test using the T-test for two independent samples, as shown in the following table:

referee	Significance level	Value -T-		Standard deviation	Arithmetic average	Number	The Collection
		Tabular	Calculated				
Non-function	0.05	2.02	0.761	0.765	16.432	30	Experimental
				0.887	16.112	30	Adjuster

**Table (5): Equivalence Between the Two Groups in The Achievement Test**

The table shows that the two groups are equivalent in the pre-achievement test, as the calculated value is smaller than the tabular value.

*Fifth: Achievement Test*

To obtain the results of the current research, the researcher constructed a test to assess the level of achievement of sixth-grade middle school students in the Arabic language. The test consisted of 30 items, with each item having four objective alternatives, one of which is correct and the rest are false. Each item



was scored as either 1 or 0, corresponding to the first three levels of Bloom's taxonomy (knowledge, understanding, application).

### *Psychometric Properties of the Test*

#### *Content Validity*

The researcher ensured the content validity of the test by consulting a panel of five experts specialized in educational and psychological sciences. These experts were asked to carefully review the test items and assess their ability to measure achievement in the Arabic language. The study adopted a standard agreement percentage of 50% as the minimum acceptable level for each item. All items were considered valid for application based on this criterion.

#### *Test-Retest Reliability*

##### *The Stability of The Test Was Assessed Through Two Methods*

- **Application and Re-application:** The test was administered to a sample of 20 students. After two weeks, the same test was re-administered under the same conditions. The data from both administrations were compared using the Pearson correlation coefficient, which indicated a coefficient of stability of 0.84.
- **Cronbach's Alpha Coefficient:** The researcher calculated Cronbach's alpha for all test items and found a reliability coefficient of 0.82 for the stability sample.

##### *Sixth: Application Of the Final Experience*

After completing a set of research procedures before applying the experiment to both groups (experimental and control) and ensuring the internal and external validity of the experiment, the post-test was used to measure effectiveness.

##### *Seventh: Statistical Methods*

The researcher utilized appropriate statistical methods using the SPSS program, including:

- Arithmetic mean
- Standard deviation
- Independent samples t-test for verifying hypotheses
- Cronbach's alpha for checking reliability
- Percentage for verifying expert agreement.
- Results, Conclusions, Recommendations, and Proposals

##### *The Hypothesis of The Research Is Stated as Follows*

There are no statistically significant differences between the experimental group, taught according to the strategy (search - solve - creativity - participate - evaluate), and the control group, taught using the traditional method (lecture), in the post-application of the academic achievement test for the Arabic language subject."

referee		Value -T-			Number	
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	Significance level	Tabular	Calculated	Standard deviation	Arithmetic average		The Collection
function	0.05	2.02	6.453	0.876	25.676	30	Experimental
				0.845	16.45	30	Adjuster

**Table (6): Comparison Between the Experimental and Control Groups in The Post-Test**

It is evident from the previous table that the calculated value (6.453) is greater than the tabular value (2.02). This indicates that there are statistically significant differences between the experimental group, taught according to the strategy (search - solve - creativity - participate - evaluate), and the control group, taught using the traditional lecture method. Since the calculated value exceeds the tabular value, the null hypothesis is rejected in favor of the alternative hypothesis. Therefore, there are statistically significant differences between the two research groups, with the experimental group showing a higher average.

This suggests that the strategy (search - solve - creativity - participate - evaluate) is effective in enhancing academic achievement in the Arabic language. This effectiveness can be attributed to the active learning approach underlying this strategy, which provides learners with ample space and freedom to acquire, evaluate, and scrutinize knowledge. These factors contributed to the improved academic achievement in the Arabic language.

## Conclusion

The use of the search—solution—creativity—participation—evaluate strategy in teaching the Arabic language contributes to raising the level of academic achievement among middle school students in the sixth grade.

Sixth-grade students in the experimental group outperformed the control group members in the academic achievement test for the Arabic language.

## Recommendations

- Organize scientific conferences to discuss the current state of teaching the Arabic language in middle schools and explore ways to enhance it.
- Encourage specialists in teaching methods for the Arabic language to find solutions to teaching challenges, aiming to improve academic achievement.
- Emphasize teaching strategies based on active learning, as they provide learners with sufficient freedom, which can attract more students.
- Conduct developmental training courses for Arabic language teachers to ensure they are up-to-date with advancements in teaching methods.

## Propositions

The researcher proposes conducting the following studies

- Assessing the effectiveness of the strategy of searching - solving - creativity - participating - evaluation in developing grammatical concepts among middle school students.
- Investigating the effect of the strategy of searching - solving - creativity - participation - evaluation in improving the written expression of middle school students.

## Declarations

**Conflict Of Interest:** All the authors declare that they do not have any conflict of interest for the data presented in this manuscript.

**Ethical Approval:** Action does not require morality Approval that there are no side effects on the environment.

**Data And Code Availability:** All the data are included in the manuscript.

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## Credit Authorship Contribution Statement

NAS: Conceptualization, validation, Formal analysis, Data curation, Methodology, Software, Writing – original draft

SFJ: Formal analysis, Validation, Visualization

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