



The Effect of the Pre and Post-Preparations on the Achievement and Retention of First Grade Students / College of Environmental Sciences in Arabic Grammar

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ABSTRACT

Specialists have prepared Arabic grammar as the pillar of Arabic science and its supreme constitution, from which one derives help, draws inspiration, and always returns to it, and there is no science that is independent of the rules of the Arabic language.

As it is one of the most important sciences of the Arabic tongue, and mastering it is an important means to reach a more important goal, which is speaking in sound Arabic, in addition to being the weapon of the linguist, the Imad of the rhetorical, the tool of the legislator, the tool of the Arabic, and the entrance to all the Arabic and Islamic sciences.

It is not only a study subject, but it is the important means that straightens the students' tongues, protects them from error, accustoms them to the accuracy of methods, develops their linguistic wealth, enables them to use words and structures correctly, trains them to think continuously, and enables them to understand complex and ambiguous structures.

In this study, the researcher tried to experiment with both types of preparation (pre and post) to know their impact on the achievement of Arabic grammar with this achievement among first-year students / College of Environmental Sciences.

To verify this, the researcher chose an experimental design with three groups, two experimental and one control group, and randomly selected a sample of students of the first stage / College of Environmental Sciences. The research sample amounted to (90) students distributed randomly among the three groups, with (30) students in each group.

The researcher has equaled between the students of the three research groups in the variables: (chronological age, and degrees of the Arabic language in the previous academic year 2015-2016).

The researcher prepared (20) behavioral goals that covered the five specific topics in the experiment, and prepared teaching plans for the specific topics of the experiment, and to measure the achievement of the students of the three research groups studied by the same researcher. (30) items in three various questions, and the test was characterized by validity and reliability, and then the test was repeated on the research sample after (14) days to measure retention of achievement.

The researcher dealt with the data of his study statistically by using one-way analysis of variance, chi-square (K2), item difficulty coefficient and strength of discrimination, effectiveness of alternatives, Pearson correlation coefficient, Schaffer method, Spearman-Brown equation, t-test, and t-value extraction equation.

After analyzing the results statistically, the results were as follows:

There is a statistically significant difference at the level (0.05) between the two experimental groups and the control group in achievement, as the first experimental group outperformed the control group, the second experimental group outperformed the control group, and the second experimental group outperformed the first experimental group.

There is no statistically significant difference between the two experimental groups and the control group in the average degrees of retention in achievement.

There is a statistically significant correlation between the average scores of the students of the three research groups in the achievement test, and their averages in the achievement retention test, as the values of the correlation coefficients indicate a close relationship between the two tests.

In light of the results of the research, the researcher recommended the need to use the two methods of preparation (pre and post), especially the post



preparation, and increase the interest of male and female teachers by using various methods of pre and post preparation.

The researcher suggested conducting subsequent studies that are complementary to this research in this field, which still needs many subsequent studies and research.

I. PROBLEM

The researcher agrees with the opinion that a large part of the problem lies on the teaching method used. Since the problem is not due to the existence of a real difficulty in the subject of Arabic grammar only, but rather in the method or method used in communicating and facilitating these rules (Ghalloum, 1982, p. 9).

The weakness of students in grammar is almost comprehensive and general, as it is not limited to one stage of study without another, or one class without another (Al-Labadi, 1999, p. 82). The learners complain about the dryness of the grammar presented to them in all stages of general education, and it is noticed by them that the many grammatical errors they fall into and their inability to properly control the end of the words in speech and writing (Abdul-Hadi, 1999, pp. 312-313).

From the above, the problem is not in the Arabic language, but rather in the methods we use in teaching it and presenting it in books (Al-Qaisi et al., 1985, p. 51). There is no doubt that teaching methods have a direct relationship to the extent to which students love or repel the rules of their language and its impact on their success or failure. In other words, teaching methods are directly related to students' achievement in Arabic grammar (Abdul Aziz, D. T., p. 7). From here, the need for research arose, as the teacher's adoption of modern methods contributes to the granulation of the rules of the Arabic language to the hearts of students.

2. Value

The concept of language may be consistent with ibnJani and the modern concept of language, as most modern linguists agree that language is a system of sound symbols or these sounds produced by the pronunciation device in man expressing the needs he feels he wants to show, and that it is a complex thing related to his study of several sciences such as natural science because the language consists of voices, and the science of physiology because those movements and sounds are semantics due to psychological facts, and that the science of the tongue benefits from The results reached by phonology, physiology and psychology, but the failure to collect the results provided by

those sciences, the original theme is the study of language not as a vocal phenomenon or a muscular or sensory phenomenon subject to movements, sensory perception or understanding of the sounds issued, but is a means of communication between objects that meet in groups, I mean it is a social phenomenon and is part of sociology and human language (Maii, N.D.: p. 429).

3. Aims

The current research aims at: Knowing the effect of the pre and post preparations on the achievement of first-grade students / College of Environmental Sciences.

4. Hypotheses

It is hypothesized that:

1. There is no statistically significant difference between the two experimental groups and the control group in achievement).
2. There is no statistically significant difference at the (0,05) level between the average achievement of the students of the first experimental group who studied using the experimental preparation method and the control group who studied according to the usual method.

5. Limits

- A sample of first-year students / departments of environmental health and environmental sciences for the academic year (2016-2017).
- 2. Objective limit: (subject and predicate, k̄anawa-axawātuha, innawa-axawātuha, coordination, numbers and description).

5. Concepts

Arabic Grammar

Abdah (68: 54) defines Arabic grammar as the set of rules under which different procedures are combined, the rules that relate to the pronunciation of a word or group of words are called phonetic rules, and the rules that relate to word formation and its weight are called morphological rules, and the rules that relate to sentence systems and their syntactic movements are called grammatical rules.

6. Methodology

The researcher adopted the experimental method, because it is compatible with the nature of his research, and it is one of the scientific research methods used in educational and psychological sciences.



7. Experimental design

Choosing the appropriate experimental design ensures that results are obtained that answer the questions posed by the research problem, and that its hypotheses are verified.

What is meant by the first experimental group in this design is the group whose students are exposed to the independent variable (pre-preparation), the second experimental group is the group whose students are exposed to the independent variable (post-preparation), and the control group is the group whose students study according to the usual method. It is the dependent variable and it is measured by means of a post achievement test to know the effect of the pre and post preparations on the achievement and retention of the material.

Third: The research community and its sample:

1 Community search:

Identifying the research community is important in educational research, because it is a necessity in the selection of samples. The research community consists of first-grade students from the Faculty of Environmental Sciences, which includes three departments, for the academic year (2016-2017), where the requirements of the experiment are met.

2 Sample search:

Before starting his experiment, the researcher was keen to statistically equalize the three research groups in some variables that may affect the results of the research and these variables are:

The student's time age is calculated in months.

Educational achievement (Arabic language grades for the sixth grade of preparatory school for the academic year 2015/16.

The achievement grades in Arabic for the previous academic year 2015 2016 were calculated for the sixth grade preparatory for the students of the three research groups, and the results were treated with a single variation analysis

The calculated t value appears to have been (084.2) which is lower than the table value of 3.18 at the freedom score (2.87) and at the indication level (05.0), indicating the parity of the three research groups in this variable.

II. EXPERIMENTAL EXTINCTION:

Experimental extinction is intended, the effect of leaving a number of students (research sample) or interrupting them during the experiment, affecting the average achievement (Whirlwind, 1980, p. 95). The current research did not expose students to abandonment, interruption or transition throughout the trial.

Maturity Processes

The duration of the experiment was one for the three research groups, which is (9) weeks, starting on (16/10/2016) and ending on (1/12/2016), and the experimental design adopted by the researcher was with two experimental groups and a third officer, so the growth that occurs will return to the members of the three groups, i.e. this factor has not had an impact on this experiment.

Measuring Tool

The researcher in the study used a unified tool with the three research groups, the (collection test), which was characterized by objectivity, validity, inclusiveness and reliability.

Impact of experimental procedures

The researcher tried to limit the impact of this factor on the progress of the experiment and this represents what comes:

A: The specific subject of the experiment was the same for the three research groups, the researcher relied on (5) topics are :(nestist and news, was her sisters, and her sisters, number, and kindness, and thus the researcher was able to control the effect of this factor.

B Teacher: The researcher studied the three research groups himself. This may add to the experience a degree of accuracy and objectivity, because allocating a teacher to each group may make it difficult to return the results to the independent variable, it may be attributed to the strength of a teacher and enable him to his material, personal qualities, or other factors affecting

C Distribution of lessons: To adjust this variable the researcher agreed with the head of the department on the equal distribution of lessons between the three research groups, so that the teaching of students of the three research groups is taken into account on the same day, and arabic grammar lessons have been distributed among the three research groups between Sunday and Wednesday of each week

D - Teaching aids: The teaching aids were identical between the three research groups in terms of the similarity of blackboards, and the use of colored and white chalk.

G. College building: The researcher applied his experience in one school, in adjacent classrooms, similar in terms of area, number of windows, lighting, ventilation, number, type and size of seats.

Fifth: formulating behavioral objectives

Determining behavioral goals is necessary in the educational process, as it allows evaluating the adequacy and effectiveness of teaching in a specific and clear way, and it is easy to measure because it



shows the goals of teaching in observable and measurable terms.

The formulation of behavioral objectives requires an analysis of the content of the study material and the transformation of objectives from their general formulation into behavioral objectives that enable students and teachers to have a clear idea of what they must accomplish (Muhammad, 1990, p. 116).

The researcher formulated behavioral objectives in light of the general objectives of the subject, and what is consistent with the nature of the content of the study material covered by the research experience, and the number of behavioral objectives in their initial form reached (68) behavioral objectives distributed among the seven subjects concerned with the study (Appendix 4).

Sixth: Preparing study plans:

Seventh: Preparation of the achievement test:

Achievement tests are an essential part of the measurement and evaluation programs that the teacher adopts in the classroom to identify the learning outcomes (Al-Baja, 2000, p. 160).

And since one of the requirements of the current research is to prepare an achievement test used to measure students' achievement at the end of the experiment and according to Bloom's classification in its three levels (remembering, understanding, and application), based on the scientific content and taking into account the test strips to achieve validity, reliability, comprehensiveness and objectivity, the researcher proceeded to prepare An achievement test according to the following steps:

As for the percentage of the importance of the levels of goals, it was determined in light of the number of behavioral goals at each of the three levels, and the percentage (the importance of topics) was found according to the following relationship:

$$\frac{\text{Teaching time for each subject}}{\text{Relative importance of the topic}} = \frac{\text{total time}}{100}$$

III. DRAFTING TEST ITEMS:

For the purpose of measuring the achievement of the students of the three research groups in the subject of Arabic grammar, the researcher prepared a learning test in the light of the behavioral objectives and levels and what contains the specific material of the experiment, and the test in its initial form included (35) items as it made the number of items more than the number specified in the test map, to guard against the lack of approval of some items experts and arbitrators or not to have a suitable difficulty factor, or a good discriminatory

force, distributed among three questions A variety of considerations in which the conditions for drafting each type on the one hand and according to the following:

Question 1: Contains (22) items of the type of choice of multiple, these items are described as commonly used, and outweigh other types of objective tests validity and consistently (Happiness, 1984, p. 162). They can be used to measure different cognitive objectives, in addition to the ease with which their results are statistically analysed, and their ability to reduce the impact of intuition and guesswork (Sheep, 1981, p. 80).

The second question: It contains (8) items of the type of right and wrong, as this type of tests is characterized by the ease of correction and the speed of answering them, and the assessment of the answers about them with complete objectivity, and it is also more comprehensive in terms of the amount of content of the study material as it can cover it in a specific time (Imam et al., 1990, pg. 79).

The third question: It contains (5) items of the type of completion, which is characterized by the ease of placing its items, its formulation and covering a large number of topics, in addition to that, there is less guesswork in it than others (Khater, 2000, p. 328), (Samara, 1989, p. 89).

3- The validity of the test:

Validity is one of the criteria that must be available in the research tool, and the test is considered validity if it measures what it is intended to measure only. But if it is prepared to measure one behavior and another, then the trait of truthfulness does not apply to it (Al-Assaf, 1989, p.

In order for the test prepared by the researcher to be valid and achieve the objectives for which it was designed, and to verify the apparent validity, the test items were presented to a number of experts and specialists in the Arabic language and its methods of teaching, education and psychology (Appendix 5), to express their views on the validity of the items in terms of their measurement and comprehensiveness. And the safety of its construction and determining the level measured by the item. After analyzing the responses of the experts and arbitrators, some items were modified and deleted (5) items because they did not obtain (80%) of the approval of experts and arbitrators, and the number of items in their final form reached (30) items (Appendix 7)

IV. SET UP TEST INSTRUCTIONS:

Those interested in building and codifying tests agree that test instructions are very important



as empirical research has shown that answer instructions have an impact on the test results if you do not take into account the accuracy of the instructions (Sharawi, 1984, p. 159). Therefore, the researcher prepared the following instructions:

A Instructions for answering: Here comes a variety of questions that include (30) items representing the content of the article you studied in the last weeks of this chapter, read each question carefully and then answer its items with what you see correct and do not leave any item unanswered, then write your name and division on the answer sheet, and answer the same question paper.

B Correction Instructions: One degree was allocated to the item indicating the correct answer, and the abandoned items and the other carrying more than one selection were treated as incorrect item, and on this basis the upper degree of the test was (30) degree and the minimum zero.

The pilot experiment:

To find out the duration of the test, the clarity of its items, the extent of its difficulty, the strength of its distinction, and the effectiveness of its alternatives, the researcher applied it to an exploratory sample selected from Al-Farahidi Intermediate School, the number of its members was (50) students, after it was verified that they had completed the study of the prescribed topics within the framework of the research plan After applying the test, it was found that all of its items are clear, and the average response time for the test items was limited to (45-55) minutes* and an average of (50) minutes. After correcting the answers, the scores were arranged in descending order, the highest score was (22) and the lowest score was (10).

A level of difficulty: The percentage of those who answer items is meant to be correct in a sample (GRONLUND, 1965, P107). After calculating the difficulty factor of each test item, it was found that they were limited to between 38% and 78%. Thus, the test items were neither difficult nor very easy, as Bloom considers the test to be good if the difficulty of its vertebrae ranges from (BLOOM, 1971, P66).

B. The strength of the distinction of item: it means the ability of the item to distinguish between the two groups, the upper and the lower, with regard to the characteristic measured by the test, and the good question is what serves this purpose (Ahmed, 1960, p. 339).

When calculating the highlighting power of each test item, it was found to be limited to (32.0 52.0), as Brown (BROUN) indicates that the item is good

if its discriminatory strength (20.0) and above (BROUN, 182, P104), so keep all test items.

C- Effectiveness of Incorrect Alternatives to the Multiple Choice Question: The process of item analysis requires studying the effectiveness of the alternatives in the multiple choice questions and to ensure the ability of the wrong alternative to distract the unknowing students and prevent them from reaching the correct answer by chance, as well as making sure that the wrong alternative is attracted to the students. In the lower category, it is more attractive than the students in the higher category (Melhem, 2000, p. 100).

After studying the effectiveness of the wrong alternatives for the multiple-choice items, the researcher arranged the students' answers for the items of the first question, and divided into two groups, upper and lower, and after calculating the incorrect alternatives, it was found that the alternatives attracted more students to the lower group than the students of the upper group, and thus it was decided to keep The alternatives are what they are.

7 Test item:

The reliability of the test means the accuracy and consistency of its vertebrae in measuring the characteristic to be measured, i.e. the test gives the same results, if it is returned to the individuals themselves in the same circumstances (Strange, 1962, p. 561).

There are several methods for measuring the reliability of tests, including: retesting method, half-fragmentation method, equal image method, and contrast analysis method, and the researcher has chosen the half-hash method in calculating the reliability of the collection test, which is one of the most widely used methods of test reliability, due to the fact that it avoids the disadvantages of some other methods (Strange, 1962, p. 565).

The researcher divided the test into two groups of individual items, and the group of marital items, according to the correlation factor between the two parts of the test using the link coefficient (Pearson), because it is one of the most important and common correlation coefficients in this area (Odeh, 1998, p. 17). The reliability factor was 85 percent. Then he corrected the Spearman-Brown equation, reaching 91 percent. It is a good reliability factor as the test is good if the reliability factor (68%) is 68%. And more in unregulated tests (William, 1973, p22).



V. SHOW THE RESULTS

The results reached after the data were statistically analyzed using mono contrast analysis, and according to the research hypothalamics adopted, follows:

The first hypothesis states that (there is no statistically significant difference between the two pilot groups and the collection control group).

To identify the statistical differences between the average scores of the three research groups in the remote collection test, the computational circles and the standard deviations of the three search groups were extracted and verified.

Digital data indicate that there are apparent differences between the three groups, but computational circles and standard deviations do not explain the morale of the differences, the researcher used the analysis of mono contrast to know the morale of the differences

There are differences with statistical evidence at the level (05.0) and freely (2,87) between the average scores of students of the three research groups in the remote attainment test, as the calculated p-value (667,27) is greater than the scheduled ph (18.3) and this result rejects the first main zero hypothesis and accepts the alternative hypothesis.

The analysis of monogamy reveals the existence of moral differences between the research groups or not, but it determines the direction of differences and does not identify the groups in which the differences are in their favor, and for this purpose and to verify the validity of the research hypotheses, the collection of each of the three research groups was compared using the Method (Chevy).

The results of the differences between the three research groups are illustrated by the research hypotheses and as follows:

It states that (there is no statistically significant difference at the level of (0.05) between the average achievement of students of the first experimental group studied in the method of tribal preparation and the control group studied in the usual manner).

To verify this hypothesis and to find out that there are differences between the achievement of the students of the two groups, it appeared that the average grades of students in the first experimental group were (967.16) and the average control group was (4.15) and when testing the morale of differences using the method (Chevy) the difference between them appeared to be statistically moral at the level of significance (05, 0) The calculated value (756.2) was greater than the critical

value of (52.2) thus rejecting the first sub-zero hypothesis that there is no difference and accepting the alternative hypothesis that goes to The presence of a statistically d difference in favor of the first experimental group.

VI. CONCLUSIONS:

In light of the findings of the research can infer what comes:

- 1 The method of preparation of both types (tribal and remote) contributes to increasing the effectiveness of teaching, and raising its efficiency measured by collection.
2. The method of preparation of both types (tribal and remote) increases the vitality and activity of students of the Department of Environmental Health and Pollution, as a modern method of teaching.
- 3 Tribal preparation method has a positive impact on increasing the achievement of students in the Department of Environmental Health in arabic grammar more than usual.
4. The use of distance preparation in the teaching of Arabic grammar contributes to raising the level of educational attainment of middle-grade students more than tribal preparation and the usual method.
5. The three teaching methods (tribal preparation method, distance preparation method, and usual method) are almost balanced in terms of maintaining arabic grammar, although there are simple differences between their mathematical averages, but these differences are not statistically significant.

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