

## **The Effect of Keegan's Structures on the Achievement of Middle School Second Grade Female Students in the subject of Spelling**

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### **Abstract**

*This research hereby aims to identify the effect of Keegan's structures on the achievement of the female students of the middle school second grade in the spelling subject. To achieve this goal, the researcher adopted the experimental approach, as she applied it to a sample of (60) female students in the middle school second grade from the Directorate of Karkh Education III. To achieve the goal of the research, the researcher prepared an achievement test consisting of (20) items. After confirming his honesty, stability, difficulty, ease and distinction, the results indicated that there are statistically significant differences at the level of significance (0,50) between the average scores of the female students of the experimental group and the control group and they were for the benefit of the experimental group, which confirms the effect of Keegan's structures on the achievement of the female students' levels in the spelling subject. The researcher made some recommendations, including the need to use Keegan's structures in the intermediate stage, as they are easy to use by the teacher, as well as Arabic language teachers are trained to use them in training and development courses.*

**Keywords:** Keegan structures, Achievement, spelling.

### **Introduction**

Spelling mistake is a distortion of writing and hinders the understanding of the sentence. If grammar rules are a means of correcting the pen and tongue from warping and slipping, spelling rules are a means of correcting the pen and the correctness of writing from error, and that there is a strong relationship between the validity of writing and the understanding of the reading and comprehension of the text, and in order for the reader to understand what was written, the writing must be sound from both grammatical and spelling mistakes. (Al-Mousawi, 2014 : 52).

The large number of spelling mistakes is evidence of a lack of written language, and the lack of possession of its corner and delay in it prevents the learner from progressing in works that require mastery of the written language (Ministry of Education, 1989 : 39).

The occurrence of middle school female students in the spelling mistake makes their writing incorrect and does not give meaning, making them reach an advanced school stage without the ability to write correctly, which constitutes a weakness in their scientific and linguistic preparation (Al-Mousawi, 2015 : 199).

This weakness is attributed to several axes, including what is related to the teacher, including what is related to the learner by underestimating the spelling mistake and

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bypassing its correction, including what is related to teaching methods and the characteristics of the written language (Khater et al., 1986 : 492) . The researcher considers the need to move away from traditional methods, reconsider and reflect on the teaching of this subject, and take into account modern educational methods in her teaching. In this study, the researcher tries to identify the effect of Keegan's structures on the achievement of second-grade female students in the field of spelling. To summarize the above , the research problem can be identified in the following question:

What is the effect of Keegan 's structures on the achievement of middle second grade female students in spelling ?

The importance of research: Education is an instrument of change and the acquisition of good qualities , and the human being is the main axis on which the education process is based, which is concerned with its roots and supplying it with movable knowledge and teaching it all the habits that make it interact with its society well , so the corruption and neglect of education will result in a disintegrated society , (Al-Mousawi and Al-Jabri, 2013: 8). The problems of education lie at the source of society and its events, ideas and crises(Al-Bashir, 2021 : 54). The strength of society, its cohesion, the integrity of its structure, and the relations prevailing in it all depend on the preparation of a generation of female students imbued with the culture, wealth, and energies of his nation (Al-Dulaimi and Alwan, 2018 : 71) .Language is a tool of thinking, and it is also a fruit of it. Through language , man performs the thinking processes of interpreting, analyzing, balancing, and perceiving relationships and extracting results(Ismail, 2012 : 22 ) .The Arabic language is the language of the Holy Quran, the language of the Quraysh , which is classical Arabic, as it was called the language of the Zad. " However , the Zad, which was pronounced by the first Arabs , is not the Zad today . Today, the Zad is an inflated dal, but the original Zad was a mixture of Za and Lam , so the Lam merged with the Za, and then merged with Dhal, and in turn turned to the inflated dal, which is not the original Zad (Al-Anati, 2022 :22-25). Spelling is one of the branches of the Arabic language. It is one of the important foundations of written expression in terms of its health and safety from errors, and it serves other general lessons. Spelling rules are a means of evaluating the pen and the validity of writing from errors (Shehata and Samman,2012, p. 12).

Kagan's constructs of cooperative learning are one of the recent trends in education that aim to link learning to action and positive engagement of learners (Al-Deeb, 2011, 16). The researcher believes that the role of Keegan structures is especially important for middle school female students because of the exchange of experiences and information that help the student in the process of memorizing and understanding the subject, as joint cooperation between female students makes them more interactive and more vital , and here the student provides assistance to another student for the purpose of acquiring information and skills in which one of the parties may be weak, which results in the exchange of experiences and information between the female students themselves.

The intermediate stage, including courses and teaching methods, works to develop minds with a degree of vitality and the ability to ask and discuss logically.

From the above, the importance of the research can be summarized by the following points:

- The importance of education as a tool for change and acquiring good qualities.
- The importance of language as a tool for understanding and expression, a means of understanding and an important factor in preserving cultural heritage.
- The importance of the Arabic language being the supreme language among the languages because it is the language of the Qur 'an, as it descended on it, and is relied upon in teaching, through which it is possible to work to preserve cultural history and work to develop it from one generation to another.

- The importance of spelling as a means of evaluating female students' tongues and helping them to pronounce phrases and write them in correct writing.
- The importance of teaching methods, which constitute the link between the student and the elements of the curriculum, as they ensure the educational situations that take place inside the classroom and are organized by the teacher.

Research Objective:

The current research aims to identify the effect of Keegan's structures on the achievement of middle second grade female students in the spelling subject, and the following hypothesis stems from it:

There are no statistically significant differences at the level of significance (0.05) between the average scores of the female students of the experimental group who study spelling for the middle school second grade according to the structures of Keegan and the average scores of the female students of the control group who study according to the usual method.

Defining terminology

1. Keegan's structures: - Al-Deeb, 2000: "It represents a modern method of cooperative learning, which depends on the organized activity of female students within the classroom, and this method provides a great opportunity for positive participation and learning, and helps to reduce the role of the teacher, in addition to academic achievement to learners" (Al-Deeb, 2000: 33).

2. Allam 2000: "As the degree of acquisition achieved by an individual, or the level of success that he achieves and reaches in a subject or in a specific educational or training field" (Allam, 2000: 305).

3. Al-Balushi, 2011 "as a term that has a verbal connotation that it is an abstraction of the elements common to something for several positions or facts" (Al-Balushi, 2011: 86).

### **Theoretical Framework and Previous Studies of Keegan's Compositions.**

These structures are based on the constructivist theory, which is based on focusing on the learner's mental ability and linking the previous stages of learning to its later stages in order to form a superior awareness in the perception of the knowledge provided by the teacher (Issa and Al-Adwan, 2016 : 16-25) . Constructivist theory is concerned with the internal cognitive processes of the learner, that is, what happens inside his mind when he is exposed to educational situations such as his previous knowledge, the extent of his acceptance of learning, his motivation and his ability to process information. Thus, the role of the teacher is to create a learning environment to make the learner build his knowledge by himself. Cognitive development does not depend on the amount of knowledge as much as the mind depends on thinking about how to use and apply this knowledge (Salman, 2019 : 310) . Constructivist theory is defined as "a process of reception that involves the reconstruction of learners with a new luminosity within the context of their immediate knowledge with their previous experiences and the learning environment, as it represents all real life experiences and previous experience alongside the learning environment" (Razouki et al., 2022 : 299) .

Keegan's structures: These structures are one of the most successful structures in cooperative learning because they are related to many aspects, including:

- Taking into account individual differences.
- Building team spirit. Keegan introduced a new method of teaching children through these structures by enabling teachers to easily move from principles to practices and teaching

with these structures because they contribute to the promotion of education, ease of use, and ease of learning (Daniel, 2004 : 2). Many researchers believe that the advantage of Keegan's structures is that they “invest content-free structures for classroom activities where learners can collaborate and share classrooms” (Al-Shimi , 2016 :75-82) .

Second: Previous studies

Study (Istiqal, 2018) : Entitled: Educational Design - Learning According to Kagan's Structures and Its Effect on the Achievement of First Grade Intermediate Female students and Their Skills in Generating Information in Mathematics.

The study aimed to identify the effect of educational design -learning according to the structures of Kagan and its effect on the achievement of middle first grade female students and their skills in generating information in mathematics

Research Community: The community consisted of middle first graders in the daytime middle and high schools of the Directorate General of Education Baghdad/Karkh First

The research sample consisted of(80) middle first graders from Al-Mustafa School for Boys, divided between two groups equally(an experimental group studying according to the structures of Keegan, a group of teaching officers according to the traditional method)

Method: The researcher adopted the experimental design of the two research groups. One group studied design (educational – learning), while the other group studied (control) in the traditional way. In order to achieve the research goal, the researcher built an achievement test consisting of (35) items in its final form.

The researcher used several statistical means, including:

Pearson coefficient, Kyodrichardson equation\_20, t-test for two independent samples.

The results of the study showed the following:

First: Keegan's structures had an effect on academic achievement and student abilities.

Second: There is a statistically significant difference in favor of the experimental group who studied according to the structures of Keegan in both the achievement test and the generation of skills in each skill separately and among the control group who studied in the traditional way (usual) Recommendations:In light of the results, the researcher recommended the following: Holding workshops to train mathematics teachers in particular and teachers of subjects in general on the procedural steps to build an educational design according to the structures of Keegan.

( Hassan,2018 : 301-321)

Studies dealing with the subject of spelling (Aziz,2016) entitled: The Effect of the Inverted Classroom Strategy on the Achievement of Second Grade Intermediate Female students in the Spelling Subject. The study aimed to find out the effect of the inverted class strategy on the achievement of middle second grade female students in the spelling subject. Research community: The community included second-grade middle school female students in Baqubah Secondary and Day Intermediate Schools in Diyala Governorate, Iraq.

Method: In his research, the researcher adopted the experimental approach.

Sample: The sample consisted of (68) female students randomly divided into two groups, each of which included (34) female students .

In order to achieve the research goal, the researcher prepared a post-applied achievement test consisting of (20) items .

Statistical methods used by the researcher:

T-test for two equal independent samples.

Study Results: The results of the study showed the following:

First: The flipped classroom strategy has a clear positive effect on the achievement of female students .Second: There is a statistically significant difference in favor of the experimental group who studied according to the inverted grade strategy in the achievement test and among the control group who studied in the traditional way (the usual recommendations: In light of the results, the researcher recommended several recommendations, including:

The need to take care to follow this strategy and similar modern strategies in teaching spelling topics

Adoption of the model plan prepared by the researcher (Aziz, 2016 :348-356).

### Research Methodology and Procedures

First: Research Methodology: - The researcher adopted an experimental approach appropriate to the conditions of the research, which is the experimental design with partial control of the experimental group, and the equivalent control group with the post-achievement test, and the design was as follows:

Second: The research community and its sample: - The research community consisted of the third secondary schools of the Directorate of Al-Karkh Education in Baghdad for the academic year (2022-2023), and the research sample was randomly selected and the number of female students consisted of (60) female students , distributed ( 30) female students for the experimental group and ( 30) female students for the control group.

Third: Equivalence of the two groups: - The researcher equalized between the two groups in the previous year's variable , and between the academic achievement of the parents , the chronological age calculated in months for the two research groups , and the intelligence of the female students of the two groups using the IQ test.Yassin Ahmed Ayal.The results of equivalence according to Table (2) (3) were as follows: -

Table 2

Group	Sample size	Arithmetic mean	Variance	Degree of freedom	T value		Significance
					Calculated	tabular	
Experimental group	30	69.766	105.001	58	0.034	2.021	Statistically insignificant
Control group	30	69.666	157.803				

Table 3

Group	Sample size	Arithmetic average	Variance	Degree of freedom	T value		Significance
					Calculated	tabular	
Experimental group	30	162.766	26.873	58	0.164	2.021	Statistically insignificant
Control group	30	162.967	18.447				

- Research Requirements: - The researcher identified the scientific subject that is taught to female students in the middle school second grade, five topics in spelling, which are (drawing the middle hamza on the A - Z - Wau – solitary – extreme after static and moving), and formulated behavioral goals (30) behavioral goals according to Bloom's classification.

Teaching plans for the topics were prepared according to what was agreed upon with the female students and according to the structures that were agreed upon with them.

Preparing a table of specifications for the construction of the test map according to the following table (4): -

Table 4

Topics	Number of targets	Relative importance	Number of targets			Number of items			Total Items
			Knowledge	Understanding	Apply	Knowledge	Understanding	Application	
Drawing the middle hamza on a thousand	6	20%	2	2	2	1	1	2	4
Drawing the middle hamza on the waw	6	20%	1	2	3	1	1	2	4
Drawing the middle hamza on the ya'	6	20%	3	1	2	2	1	1	4
Drawing the middle hamza on the line	6	20%	2	2	2	1	1	2	4

Draw ing the extre me hamz a after movi ng or static	6	20%	2	2	2	1	1	2	4
Total	30	100%	10	9	11	6	5	9	20

-Formulating the achievement test items :

preparing the specification table, the researcher built the test items , consisting of (20) items according to the test map, as the test was of a MCQ. The researcher adopted the objective test and standardized the questions.

- Validity of the test: - In order to ensure the validity of the test prepared by the researcher, I presented it to a number of experts and specialists in the Arabic language and methods of teaching it, and education and psychology to express their views and observations on the validity of the items or not to measure what was set for measurement, and in the light of their views, some items were amended, reformulated and some items were deleted according to the amendments referred to by the arbitrators.

- The effectiveness of the wrong alternatives: - After the researcher conducted the necessary statistical operations, she found that the wrong alternatives to the test items attracted a number of female students from the lower group, so the research achieved these symptoms.

Chapter Four Presentation and Interpretation of the Results: -

To verify the validity of the hypothesis and identify the differences between the averages of the ranks of the experimental group and the averages of the ranks of the control group. The results of the T-test for two independent samples show that there is a statistically significant difference between the two groups in the achievement test. The calculated T-value ( 3.639) was greater than the tabular value ( 2.021) and with a degree of freedom of 58. Thus, the difference is in favor of the experimental group and thus the zero hypothesis was rejected, and Figure 16 shows this.

Table 5

Group	Sample size	Arithmetic mean	Variance	Degree of freedom	T value		Significance
					Calculated	tabular	
Experimental group	30	13	12.616	58	3.693	2	Statistically significant
Control group	30	9.934	8.059				

Interpretation of results:

1. Keegan 's structures are a new approach that moves female students from the state of receiving to active participation and activity.
2. Using Keegan's structures motivated female students to follow up by surveying and searching for feedback.

## **FINDINGS:**

The use of Keegan's structures in teaching spelling helped female students to grow their curiosity and search for new usefulness.

The validity of what the educational literature goes to make the learner the focus of the educational process.

## **Recommendations:**

The need to use Keegan structures in the education of middle school female students because they are easy and this has shown positive results in the current research experiment.

\*Proposals: Conducting a similar study to use Keegan structures to show its effect on grammatical concepts

Conducting a similar study to show the effect of the use of Keegan structures on the development of reading comprehension skills

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650 *The Effect of Keegan's Structures on the Achievement of Middle School Second Grade Female Students in the subject of Spelling*

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