Effect of Syntax Surgery strategy on Achievement of Secondary School Student's

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Effect of Syntax Surgery strategy on Achievement of Secondary School Student's

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Abstract

The research aims to identify the effect of the Syntax Surgery strategy on the achievement of secondary school students in English grammar. The researcher used the experimental method in two groups, one of them is experimental, which is studied according to The Syntax Surgery strategy, and the second is a control group, which is studied according to the usual method. The achievement test is used as a research tool. The experiment was implemented in Somaya Secondary School for Girls in the first course of the academic year 2019-2020. After completing the application, the research applied tool, and the researcher observed superiority of the experimental group that studied according to the Syntax Surgery strategy over the control group that studied according to the traditional method. The study recommended the necessity of deception according to the strategy used with the experimental group. It also suggested generalizing Syntax Surgery strategy to other subjects such as the Arabic language and other stages in the intermediate stage.

Keywords: Multi-Word Expression, Writing Skill, EFL, Preparatory School Students'

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1.1 Statement of the Problem:

Teaching English grammar begins from primary school and continues unabated through secondary school, college, and even higher studies. Finally, the participants received their diplomas having so few knowledge about grammar. There is no other material in the coursework that learners learn for as long as that. After all of these years of instruction, learners are expected to be grammar professionals. It is incorrect to assume that grammar is too difficult. As a result, one would begin to think that the grammar instruction methods that teachers employ year after year in their classrooms are ineffective.

Grammar instruction involves some creativity, as classical grammar training methodologies are archaic, and education necessitates invention.

Grammar instruction requires some innovation, and traditional techniques for grammar training are out of date, and current education necessitates inventiveness. It is believed that it is related to the conventional methods that teachers follow in teaching grammar.

English is taught as a foreign language locally. According to the curriculum staff in the ministry of education, English is a required subject, starting from the first elementary school class through other schools and universities. As a result, keeping up with the world's progress needs a powerful command of the English language. We know that the four language skills: listening, speaking, reading, and writing must be realized in English instruction in order to enhance students' capability to use the language. Grammar mastery is essential for the ability in all the four skills. If students know very little about grammar, they will inevitably fail to understand what they hear, and fail to write and read, and consequently fail
to speak by using correct form of the language (1). Accordingly, another problem is that students focus only on passing the final examinations rather than on learning the language skills.

1.2 The Study's Objectives

The purpose of this research is to:

1- The effect of adopting the Syntax Surgery Strategy on English-language grammar ability at two levels of recognition and production

1.3 Hypothesis of the Study

On the post-administering of the attainment test, there is a statistically significant difference in the mean score level between the experimental class and the control class, favoring the experimental group.

1.4 Value of the research:

Empirically, this research will provide a visual and manual analysis of the relationships between parts of speech and grammatical structures usually used in the reading texts. Moreover, it shows the difference between the syntax of student's native language and that of the target language. Also, it helps learners to notice how the grammatical category changes by a simple move, omission or shifting of a single word or a few words. This study is also valuable because it enhances the students' grammar achievement through involving different senses in learning. According to Ertürk (2), both learning and retention of English can be promoted by visual enhancement of input.

1.5 Limits of the Research:

The present study is limited to the following:

1-The population of the study:
The population the learners in the fifth phase of secondary school are the focus of this research in the Tikrit area.

2- The sample of the study:

The sample of this study is the 5th grade at Somyia Secondary School.

3- The study Material:

4- The time of the study:

The topics or material of the study are units 2 and 3 of the fifth preparatory book, which is the eleventh in the series "English for Iraq" by Olivia Johnston and Mark Farrell. The activity was conducted in the first course of the study academic 2019/2020.

1.6 Definitions of the Basic Terms:

1. Effect

An effect is a change or reaction that someone or something causes in something else. It may also refer to a certain appearance, tone, or sensation that an artist or writer wishes to achieve. (3)

Operationally

Effect is the improvement in the students' knowledge of English grammar after they undergo the experiment of the present study.

2. Syntax Surgery strategy

A teaching technique that includes breaking sentences and arranging them into more intelligible chunks so that students can see the sentence fragments being changed. (4).

Syntax Surgery is a visual and tactile learning approach that helps students perceive the connections between components inside a phrase that may be
creating trouble or confusion in grasping while using different learning styles. (5).

**Operationally**

Syntax Surgery is the strategy that is used in this study, it involves writing problematic sentences on strips of paper and cutting and rearranging them to show the students the correct word order of the language and to help them remember English grammar.

6. **Secondary school students**

The students who study in a private school (in the USA) that prepares them for college (ibid: 657)

Pupils who join a private school (in Britain) for children between the ages of (7) and (13) (ibid: 1195)

**Operationally**

The students of the schools (in Iraq) which are higher than intermediate schools, and before the college. They are between (16) and (21) years old.

8. **Achievement**

Something that someone has accomplished effectively, especially through their own work and expertise, it is derived from the word "accomplish," which implies to succeed in obtaining a specific goal, status, or standard, especially after a lengthy period of labor. (5)

Achievement is gaining something by hard work or ability (9).

**Operationally**

Achievement is the students' mastery of English grammar and their ability to form grammatically correct sentences according to the syntax surgery strategy.

**Theoretical Background and Previous Related Studies**
2.1 Introduction

Petrina (10) declares that in spite of the similarities that many students share, all students are different. Students may simply construct their own curriculum, one that would supposedly meet their requirements. Students, however, must not be left to their own devices. Teachers who change their learned techniques accommodate a broader range of learning types than those who use them continuously. Instruction is the complement of the curriculum, just as teaching techniques are the complement of content. In the broadest sense, there are four types of instructional techniques or teaching approaches. Teachers who have spent years in schools would know each and most likely have strong preferences for one or two of the models.

1-Didactic: Direct instruction is usually verbal and takes the form of a lecture or presentation.

2- Modeling is a type of direct instruction that is primarily visual and takes the form of demonstration and practice.

3- Managerial: Facilitation, individualization, and group management; indirect or interactive instruction.

4- Dialogic: Oblique Interactive Teaching; Socratic Method of Debate, Questions, and Thought Provocation

2.2 Teaching English Grammar

Ellis (11) mentions that some writers define grammar teaching as presenting, explaining and/or practicing grammar. These definitions are not satisfactory since there are grammar lessons that consist of practice only, while others only present grammar. A broader definition of grammar learning might be:

An instructional approach that calls learners’ attention to a certain grammatical form in such a manner that it assists them in either knowing it metalinguistically
and/or processing it in comprehension and/or production in order for them to internalize it.

2.3 Importance of Learning Grammar

Learning grammar can enhance the learner's proficiency and accuracy in using the language and facilitates the mastery of its syntactic system, thus it helps the development of fluency. Nassaji and Fotos (12) also assert the importance of grammar saying. It was thought that language was primarily made up of grammatical rules, and that knowing those rules would enough for learners to learn the language. They also said that grammar is fundamental to language learning and without the acquisition of grammar, learning does not exist. (12)

Saaristo (13) finds by the means of a survey that (62%) of Finnish university students declare that grammar has a very important role in language studies, and in Finland, grammar learning is overemphasized because people are afraid of making grammatical mistakes when they speak.

BaSaeed (15) declares that grammar can be taught in many ways, but there is no best way that can suit all the rules of grammar.

2.4 Syntax Surgery strategy:

This strategy creates a visual representation of components of a phrase that assists English learners to perceive the connections. Participating in the development of the image also allows pupils to clarify meaning. This strategy was introduced by Dr. Herrell in 1998. Adrienne Herrell is a Florida State University visiting professor. At California State University, she taught seminars on early literacy, assessment, and techniques for teaching English language learners, until her retirement in 2004 (3).

The Steps of Syntax Surgery

Teachers should grade their instructions into steps in order to be easily learnt and understood by students. Any teaching strategy requires passing through
different steps from preparations to application. According to Herrell and Jordan (3), syntax surgery lesson is conducted through the following steps:

1. **Identify a problematic sentence**
   The teacher recognizes a statement that is giving trouble in this phase. It might be a statement uttered by the student in which the home language word order clashes with the English word order, or it could be a difficult sentence encountered when reading that is generating confusion.

2. **Write the sentence and initiate the “surgery”**— The instructor then puts the phrase on a sentence strip and reads it aloud with the student or students who are participating in the speaking or reading exercise. For example, if the student's statement states, "I have a blue scarf," grab a pair of scissors and cut the sentence apart in the spot or places of difficulty. "I have a blue scarf," for example, would be clipped before the words scarf and blue.

3. **Rearrange the words**—The third step would be to rearrange the words in a pocket chart in the correct English sequence. Place “I have a blue scarf” on the chart and say, “This is the way we say it in English,” then the student is asked to read the corrected sentence along with the teacher and then the teacher explains the difference in the word order as simply as possible.

4. **Practice more sentences with the same pattern**—The instructor then creates a few more phrases on sentence strips with the same word pattern and asks the pupils to read them together with him/her for extra practice.

5. **Time the lessons**—The instructor should not utilize this lesson in such a manner that it interferes with communication with the student, i.e. it should not consume the majority of lesson time and ignore other activities. The teacher should reply to pupils, model proper English grammar, and offer directions to several students at once.
2.5 The Previous Related Studies

Related Studies Concerning Syntax Surgery

Studies in Syntax Surgery strategy are quite few. Even though, there are some studies concerning syntax surgery strategy:

1. Damai Study (2018)

Damai (18) has conducted a study in Sumatra, Indonesia, using Syntax Surgery strategy—he used the word 'technique' instead of 'strategy'The study's dependent variable was reading comprehension in descriptive literature. The study sample consisted of 75 students (56 females and 19 males). The students were distributed into two classes, one is control class (38) and the other is experimental (37). Damai used pre-test and post-test as the study instruments. In the pre-test, experimental group got a score mean of (58.10), whereas control group's was (53.55). After treatment, the mean of experimental group was (78.24), and that of control group was (68.68). After analyzing the data collected from pre-test and post-test, the writer found a clear difference in the results in favour of experimental group, and that Syntax Surgery strategy is an effective pedagogical technique.

According to the results stated above, it is definitely expected that Syntax Surgery strategy will achieve better results in case it is used to teach grammar, because this strategy best suits the subject of syntax and grammar instruction. One can observe from the name of this strategy that it is originated basically to analyze the element of syntax since syntax means the way in which words are arranged together to form correct sentences in a specific language.

2.6 Studies related to Achievement Grammar:
1. Abu Moumer Study (2017)

In a study by Abu Moumer (2017) in Gaza, Palestine, the writer wants to check grammar learning by using Mastery Learning Model. The writer selects (69) students to represent the study sample. She distributes the students as follows: (36) in exp-group and (33) in cont-group. They are in 10th grade and aged between (15—16) years, who are a little younger than the sample students of the present study. The writer uses pre-test and post-test as a technique for collecting data. In the pre-test, the two groups. The highest score is (30) and the result after treatment and post-test is that the mean of con-group is (19.39), whereas the average of exp-group is (24.69). This means that there is a significant difference between the both groups concerning English grammar achievement (19).

2. Damra and Al Qudah Study (2012)

Another study made by Damra and Al Qudah (2012) in Amman-Jordan to studies the effect of students' native language on English grammar achievement of (9th) stage EFL students in the academic year 2010-2011. The sample of the study consisting of (80) secondary school female students in classified in 2groups, control and experimental. The instrument used was grammar achievement pre-test to see if there is any difference in students' levels, and the two groups were equivalent. Then, after the experiment was conducted, students were post-tested. The result was that after post-test the average of cont-group was (16.0), while the mean of exp-group was (21.25). This means that students who were taught English grammar using Arabic (students' native language) achieved the rules better than those taught without using the native language (20).

3. Plan of the Study

In order to conduct this study, two groups of 4th graders were chosen as the "exp-") and "cont-") groups. Both groups pass a pre-test to check their levels in
English grammar. Then, the cont- group is taught through the conventional method, and the exp-l group is obtained through the Syntax Surgery Strategy.

Then, the students, using a pair of scissors, cut and correct the sentences themselves, then, they practice more sentences in the same way and they read the new structures.

After the course is finished, the two groups are submitted to apre- post-test to check for a significant difference in the results pre and post- test to two groups. The lesson plans and procedures for two group of the study.

2. Methodology:

1. Independent variable (i.e. the exp-group) represented by training students in using the syntax surgery strategy.

Table (1) below highlights the experimental design of the study.

<table>
<thead>
<tr>
<th>Group</th>
<th>Treatment</th>
<th>Post –test.</th>
<th>Test / Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimental</td>
<td>The syntax surgery strategy</td>
<td>✅</td>
<td>Achievement test English language</td>
</tr>
<tr>
<td>Control</td>
<td>Traditional method</td>
<td>✅</td>
<td>==</td>
</tr>
</tbody>
</table>

3.2 Research community and Sample

Research community includes the learners of all the fifth secondary classes in Tikrit city in the academic year 2019-2020. The sample chosen for this study consists of (50) male students aged 16-17 years old and they come from the same cultural community, they represent two fifth secondary classes from the scientific branch in Somaiya for girls.
It is a homogenous sample in which the students come from the same cultural background since they are at the same stage and have studied English for eight years. The sample is represented in the following table:

Table (2) students' group distribution

<table>
<thead>
<tr>
<th>section</th>
<th>Group</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Class A</td>
<td>Control</td>
<td>25</td>
</tr>
<tr>
<td>Class B</td>
<td>Experimental</td>
<td>25</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

The technique that is used in selecting the sample of the study is "deliberate sampling" which is also known as purposive or non-probability sampling (Kothari, 2004: 15). The reason is that "Sumaiya" Secondary school is the only male school in Tikrit city which has a homogenous sample of fifth secondary classes.

3.5 Instruments of the Study:

Construction of the Test

The test items with their behavioral objectives are set by the researcher who has taken the items from both versions of the established book for fifth preparatory class, Student's Book and Activity Book. The test items and the behavioral objectives are then reviewed by the supervisor of this study and the jury members in order to modify, substitute or omit the unsuitable questions and items. The final construction of the test is the following:

1-Question number one (which constitutes production) is the major question in the test. It consists of (20) items. Items (2, 7, 8, 11, 15, 16, 18, 19, 20) require the students to put the tenses in the correct form. Items (1, 5, 14) require the correct ordering and placing of words. Items (3, 4, 6, 9, 12, 13) need supplying appropriate words or phrases derived from a given sentence or example. While in
items (10, 17) students have more freedom of choosing the expressions. This question worth (40) marks.

2-Question number two (which measures recognition) consists of (10) multiple choice items that measure different aspects. Items (1, 4, 8) examine semantic knowledge. Items (2, 3, 7, 9, 10) examine grammatical knowledge. While the items (5 and 6) examine phonological knowledge. Question number two worth (20) marks.

3-Question number three (which also measures recognition) consists of (10) items that require the students to match pairs of words to form compound nouns. This question worth (20) marks, two marks for each correct pair.

4-Question number four (also measures students' production) requires the students to supply the past tense and past participle for (10) irregular verbs. This question also worth (20) marks, two for each item, and one for each conjugation.

It is clear that (60%) of the test items, which are represented by questions one and four, constitute production from the students. In other words, require the students to supply or infer the answers rather than choosing them. The other (40%) of the items, questions two and three, constitute recognition. They require the students to choose the correct answers from given alternatives.

Procedures of the Study

Application

In conducting this research, which was already planned, some steps are followed to apply the experience, they are:

1-In the first meeting on Sunday, 2nd October 2019, the pre-test was given to both control and experimental groups to get an index or a fair idea of the students' previous knowledge of English grammar.

2-All (50) students, the requirements of this study determined which class is the control group and which one is the experimental. Then classes are taught for
forty-five minutes, four times a week. The control group is taught by the conventional strategy used by most of Iraqi teachers, i.e. deductive, inductive or a mixture of both. With the experimental group, Syntax Surgery Strategy is used.

3-The teaching process was followed by giving the post-test on 6th January 2020 in order to check for significant effect of Syntax Surgery Strategy on students.

4-Eleven days after the post-test is given, on 17th January 2020, a delayed post-test is given to experimental group in order to check to what extent the students can retain the grammar rules they have been taught.

Statistical Tools

The following statistical tools are used in the present study:

1-The Mean is used to calculate the average of statistic data, it is achieved by adding up all the components then dividing the resulted sum on the number of components.

2-Independent sample t-test is used to find out the students' levels in English and achieve the sample homogeneity (ibid: 147).

4- Cronbach's Alpha formula is used to achieve the test reliability, it ranges (83%). The formula is shown below:

5-The percentage is used to find the proportion of students who answer each item of the test correctly and/or incorrectly.

6-Standard Deviation used to calculate the independent sample t-test and to find the difference between the groups of the study (ibid: 88).

To obtain the final results of this study, some of the statistical tools explained above are handled manually, and some of them are handled automatically by using SPSS (Statistical Package for Social Science).

Verifying the hypothesis:
The hypothesis states that, On the post-administering of the attainment test, there is a statistically significant difference in the mean score level between the experimental class and the control class, favoring the experimental group.

The t-test for independent homogenous group was used on the Achievement in test of English Grammar. Results of t-test confirm hypothesis two as shown in Table (3). T-test of Achievement post scale comparing both control and experimental groups on the students Achievement scale:

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>D.</th>
<th>Levenes' Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Control</td>
<td>22</td>
<td>2.5</td>
<td>0.75</td>
<td>F</td>
<td>SIG.</td>
<td>Medium</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>4</td>
<td></td>
<td>1.78</td>
<td>0.189</td>
<td></td>
</tr>
<tr>
<td>Experimental</td>
<td>22</td>
<td>3.5</td>
<td>0.74</td>
<td>Equal Variances not assumed</td>
<td>3</td>
<td>Significance at Level 0.05</td>
</tr>
<tr>
<td></td>
<td>5</td>
<td>5</td>
<td></td>
<td></td>
<td>5.60</td>
<td>0.05</td>
</tr>
</tbody>
</table>

Table shows that there was a statistically significant difference between the mean scores of the control and experimental groups in the students Achievement post-test-value. This table indicates that the computed t-value (5.60) is more than calculated t-value (2). This means that there is statistically significant at (0.05). These findings support positively hypotheses and favor the experimental post results to that of the control group on the student English Language Achievement post-test. This significant difference between the exp- and the con-groups can be attributed to the outcome of training the exp- group in Syntax Surgery Strategy. This result states the effect of Syntax Surgery Strategy activities (recognition and production) on the students' achievement in grammar that give opportunities for every student to learn English language and to enhance their own preferences.

5.3. Recommendations:
In the study results, the following recommendations can be drawn to:

- Education systems must pay greater attention to professional development programs for EFL teachers, particularly in grammar.
- EFL teachers must be aware of the tools and grading scales essential for assessing and monitoring students' language skills advancement.

**Ideas for future research:**

The study's findings and results provide the way for further research:

- Examine the impact of the Syntax Surgery Strategy on the improvement of students' critical thinking, creative thinking, and problem-solving abilities.
- Examine the impact of the Syntax Surgery Strategy on student achievement at various stages of schooling (Elementary, secondary and University).

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