The Effect of Explicit Teaching of Grammatical Metaphor on Iranian EFL Learners' Writing Performance

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Abstract

This study aimed to find out the effect of explicit instruction of grammatical metaphor on writing performance of Iranian EFL learners. Fifty two M.A English teaching students male and female from Islamic Azad University in Tabriz took part in this quasi experimental survey. A proficiency test was administrated to the participants to make sure of their homogeneity. Then, forty two of them were administrated to control and experimental groups (two intact classes). At the beginning of the semester both groups wrote their pretest in order to test their awareness of grammatical metaphor. The grammatical metaphor and its function were taught to the experimental group. At end of semester both groups wrote their posttest. The results of descriptive statistics of the independent sample test and the ANCOVA revealed that experimental group did significantly better than the control group. Thus the null hypothesis is rejected. At end of teaching, a questionnaire including fifteen questions was given to the students of the experimental group to get their opinion about being taught grammatical metaphor, descriptive statistics analysis of questionnaire by T-test showed that participants have positive attitudes towards explicit instruction of grammatical metaphor so the related null hypothesis is rejected.

Keywords: Systemic Functional Grammar, Ideational Grammatical Metaphor, Lexical Density, Writing.
1. Introduction

According to Halliday (1996, as cited in Afruz, 2014), being literal in a language means engaging with language and its written form: distinguishing what is writing from what is not writing. For Halliday (1996, as cited in Afruz, 2014) “in the written language writer can engage the material environment to produce abstract symbolic knowledge” (p.30).

It has been believed that learning to write densely is the most difficult skill, regardless of whether the language in question is a first or foreign language. All normal people learn to speak and understand speech, but not all of them learn reading, and still fewer to write complex (Ravelli, 2003). Ravelli (2003) puts writing in this way: “Writing is not a natural activity. All physically and mentally normal person learn to speak a language, yet all people have to be taught to write” (p.135).

There is no doubt that writing is the most difficult skill for learners to master. The difficulty lies not only in generating and organizing ideas, but also in putting ideas in a complex way. The skills involved in writing are highly complex. L2 writers have to pay attention to higher level skills of planning and organizing as well as lower level skills of spelling, punctuation, word choice, and so on. The difficulty becomes even more if learners language knowledge about density of writing is weak. One of the features that create density of writing is a grammatical metaphor (GM after here).

In the framework of SFL, among many of the new concepts introduced, GM is one of the most essential ones since it made it possible to enhance the understanding of nature of language, the semogenic process of language and the relationship between language and context. The term metaphor is traditionally applied to the lexical transformation which can be described as “variation in the use of words” (Halliday, 1985, p. 320). However, metaphor is also variation in the expression of meaning if it is described from the point of view of how meaning is expressed (Halliday, 1985). While the term metaphor is traditionally comprehended as being lexical metaphor, the concept of GM opens a new horizon in interpretation of metaphor, suggesting that metaphor can be also investigated from the angle of grammar. It expands the canonical concept of metaphor from lexical domain to grammatical region at lexicogrammatical level.

Nominalization is the most common form of IGM, particularly in science, technology, and written discourse (Halliday, 1985, 1994). Halliday and Matthiessen (2004) point out that lexical density, nominalization and GM are the main lexicogrammatical characteristics of the written (academic) language. Halliday (1994, p. 352) also expresses that nominalization has been known as"the single most powerful resource for creating GMs". Thus, nominalization can be considered as a process of a small word packed into phrase, or two or three small words are packed into a small sentence. Nominalization makes an action or process become concept and also, it reduces the number of clauses and more information is compressed into each nominal group. Each nominalized or metaphorical domain has its congruent wording. Metaphorical domain explains the situation more interesting and formally in comparison with congruent one (Thompson, 2004; Halliday, 1994). The reason for the selection of the metaphorical form is to select the process type or transitivity system and to construct them the way the speaker wants. It is important to say
that grammatically metaphorical forms are never totally synonymous with their non-metaphorical counterparts; there will always be some semantic feature or features distinguishing the two (Halliday & Matthiessen, 1999).

Researchers have claimed for decades that academic writing is more structurally elaborated than speech. Metaphorical modes of expression are characteristics of all adult discourses (Halliday, 1994). The shift from congruent to metaphorical modes of expression is also the characteristic of written English. For foreign language learners, getting to know the features of the target language and using them in their own expressions are important. Thus, lexical density may regard as a very important feature in successful academic writing. For this reason, the researcher hopes to find out the effect of an explicit instruction of grammatical metaphor on MA students' writing performance which helps writers, readers, students, translators and writing professors use and understand language more effectively.

1. Research Questions and Hypotheses

Based on the main purpose of the research and the scope of the study, the present research aims to find logical answers for the following research questions.

1-Does explicit teachings of grammatical metaphor enhance the lexical density of Iranian EFL learners' writing performance?

2-Do Iranian EFL learners have positive attitudes toward the explicit teaching of grammatical metaphor?

Based on the research questions, the following hypotheses (null hypotheses), were formulated:

H01- grammatical metaphor does not enhance the lexical density of Iranian EFL learners' writing performance?

H02- Iranian EFL Learners do not have positive attitudes towards the explicit teaching of grammatical metaphor.

2. Methodology

2.1. Participants

The participants in this study consisted of 52 Iranian male and female students from two intact classes. They were M.A university students in English language teaching (ELT) at Islamic Azad University (IAU), Tabriz Branch and were within the age group ranging 23-45 years old. They were in intermediate and advanced proficiency levels and were taking a course in writing class. They were 40 females and 12 males, their native language was Azeri Turkish and their second language was Persian. Each class contained 28 students; the population of the students was limited to the first year English students at IAU, Tabriz Branch because in this year they have compulsory linguistics and writing course.
2.2. Procedure

This study was conducted in the following stages:

Fifty two learners assigned to two groups (one experimental /one control group) participated in this study. There was no random selection (intact sample) and the sample M.A teaching students had “Linguistics” at their compulsory course in Islamic Azad university of Tabriz at the same semester they had “Advanced writing” at their compulsory Course with another instructor. During the second week of the term, M.A EFL students of the first semester received information about the nature of this study and were invited to participate. So in the first stage, the homogeneity of 52 research participants was assessed via administering a PET, as mentioned earlier in this chapter. Students took this exam in the second session of the semester. The results indicated that 10 of the participants were not at the same proficiency level as the rest and their data was excluded from further analysis. The composition of those with PET scores 35-45 were subjected the analysis in this study; reducing the total number of the samples to forty two. These learners were divided to two groups: (twenty- two learners as the experimental group and twenty as the control group, both groups had the same instructor. It is worth mentioning that those who scored lower or higher than standard deviation participated in the same classes and received the same instruction since the course was compulsory and no one could drop out, but their compositions and scores were not a note element in the study. As mentioned previously these students had “advanced writing course” with another instructor, the instructor and the length of the instruction for these two groups for the writing course were the same. The two groups received instruction for writing academic composition writing using the text book “The English Advance Writing” by Mack Millar 2008. The second stage of this study at the third session involved assigning a writing task as a pre-test for eliciting students’ awareness of grammatical metaphor in the control and the experimental groups that took place The participants were required to write at least 110-word composition in 60 minutes about the following general topic: “Where do you prefer to live, in a rural area or in an urban area? Why?” The purpose of administrating this pretest was to see whether participants use grammatical metaphor or not.

The third stage of this study involved assigning a writing task as a post test that took place in fourteen session to access the effect of explicit teaching of GM on the experimental group in comparison of the control group that did not received any treatment about GM, The post-test was administrated to check what had changed regarding explicit teaching of grammatical metaphor during the treatment. In order to reduce the effect of pretest on students, the topic given in pre-test was somehow modified, the students were told to write about "What are the advantages and disadvantages of living in rural and urban areas”? Again the same limitation that students had in pre-test was provided for them: they were asked to use at least 110 words in their composition in 60 minutes in order to get the experimental group students’ attitude towards explicit teaching of GM, they filled the questionnaire in the same session.

Regarding the subjects’ performance on the PET, part of the evaluation was quite objective because any item of the test related to reading part had only one correct response another part concerned writing had some degrees of subjectivity, but in order to increase its objectivity, the researcher used the proposed principles that the three instructors agreed on them and in other
words, the holistic scoring was used. However, for the evaluation of the compositions, two different methods were utilized: a holistic method and a frequency counting marking. As for the holistic evaluation, however, the compositions were rated by three experienced EFL instructors. Instructors attended the training sessions where examples of various types of errors committed by the subjects were carefully examined. These sessions were held to ensure consistent grading among the raters.

As for the objective or frequency marking evaluation, the compositions were first segmented into words, clauses, GM and T-units. Then, the number of words, clauses, GM and T-units, were counted by the researcher. These counts were then used in computing the measure of Lexical density proposed in this study so the following formula were utilized:

\[
\text{Lexical Density}_1 = \frac{\text{The number of the grammatical metaphors}}{\text{The number of the words}}
\]

\[
\text{Lexical Density}_2 = \frac{\text{The number of the grammatical metaphors}}{\text{The number of the clauses}}
\]

\[
\text{Lexical Density}_3 = \frac{\text{The number of the grammatical metaphors}}{\text{The number of the T–units}}
\]

2.3 Research Design
The inquiry aimed to determine the effect of the independent research variable GM, on dependent variables of lexical density. So that quasi–experimental design was used and one type of treatment was given to the experimental group: they were thought grammatical metaphor, and then writing samples obtained from the participants could be compared.

3. Results and Discussion
3.1. Results of the Proficiency Test

Base one the scores obtained from the proficiency test (PET) administrated before the treatment, Iranian students majoring ELT at M.A level are supposed to be at intermediate proficiency level. Thus, the first step in conducting the research was to ascertain their homogeneity in general English via a PET test, the results of which were tested via an independent sample t-test to examine how homogeneous the groups were before the treatment, the one sample K-S test had shown normal distribution of scores for two groups, allowing the researcher to use Parametric tests. Table 4.1 provides the descriptive statistics related to the normality of scores of two skills reading and writing obtained from the PET, the total scores of this exam was 50. A few students with (±1) standard distribution scores were excluded from the study. And students who scored between 35 and 45 were selected as sample of this study. The obtained mean score is 40.36 as displayed in Table 4.3.1. The calculated SD, 2.87 was the criteria bases on which the selection of
participants was done, in other words, participants whose scores were (+1) SD above and below mean were included as the sample of the study.

Table (3.1) Result of proficiency Test

<table>
<thead>
<tr>
<th></th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>PET</td>
<td>Control</td>
<td>20</td>
<td>41.05</td>
<td>3.170</td>
<td>35</td>
<td>45</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>39.73</td>
<td>2.472</td>
<td>36</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>42</td>
<td>40.36</td>
<td>2.870</td>
<td>35</td>
<td>45</td>
</tr>
</tbody>
</table>

As seen in table 3.1 the mean and standard deviation for control group are (M=41.05 and SD=3.17) and for the experimental group are respectively (M=39.37 and SD=2.47) so two groups are homogeneous.

3.2. Results of Writing Skill Pre-Test

In the third session of this research, a writing pre-test given to all participants in the control and the experimental group to determine the background knowledge of the two groups before treatment of experimental group. The topic was “Where do you prefer to live, in rural area or in an urban area? Why?” After administering the pre-test and, the researcher and two the other instructors scored paper holistically and the researcher also had frequency counting marking. The mean scores of the three raters’ scores were considered as the Pre-test scores and the frequency of GMs, the ratio of GM /words, GM to clauses and GM /T-units show their background about grammatical metaphor. Tables 3.2 and 3.3 show the results respectively.

As Table (3.2) illustrates the mean scores and standard deviation in control group for GM, the LD1(GM to words), LD2(GM to clauses ), and LD3(GM to T-units) in control group in pretest are respectively (M=9.60, SD=2.50), (M=0.06, SD=0.01), (M=0.58, SD=0.16), and (M=0.67, SD=.18) respectively. The mean score of GM, LD1(GM to words), LD2(GM to clauses)
and LD3 (GM to t-units) in the experimental are (M=10.18, SD=2.01), (M=0.06, SD=0.01), (M=0.59, SD=0.15) and (M=0.68 and SD=0.15) respectively, finally the obtained mean score and the standard deviation for raters’ scores in the control group and the experimental group are (M=14.49,SD=1.42) and (M=14.45,SD=1.37).

For checking homogeneity of the control and the experimental groups the mean scores on pretest via compared. If there is not a significant difference between the two groups, it is concluded that the groups are homogeneous. An independent t-test was used to compare the mean scores of two groups on pretest. The null hypothesis is the equality of dependent variables in two groups. If significant level is less than 0.05, the null hypothesis is rejected. The necessary condition for the comparison of means is equality of dependent variables variance on both groups. Therefore, the Levene’s test was utilized for the equality of variables. If variances are not homogeneous, the t test with different degree of adjusted freedom is used. If the significance value is less than 0.05, the null hypothesis is rejected.

Table (3.3) represents the descriptive statics of the raters’ scores for participants in the control and the experimental group.

### Table (3.3) Statics Analysis of Raters’ scores for pretest of the control and the Experimental groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater.pre1</td>
<td></td>
<td>Control</td>
<td>20</td>
<td>14.200</td>
<td>1.6092</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>14.250</td>
<td>1.3430</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>42</td>
<td>14.226</td>
<td>1.4575</td>
</tr>
<tr>
<td>Rater.pre2</td>
<td></td>
<td>Control</td>
<td>20</td>
<td>14.600</td>
<td>1.1539</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>14.477</td>
<td>1.4013</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>42</td>
<td>14.536</td>
<td>1.2754</td>
</tr>
<tr>
<td>Rater.pre3</td>
<td></td>
<td>Control</td>
<td>20</td>
<td>14.575</td>
<td>1.4534</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>14.523</td>
<td>1.2675</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>42</td>
<td>14.548</td>
<td>1.3426</td>
</tr>
<tr>
<td>Raters’ score. pre</td>
<td></td>
<td>Control</td>
<td>20</td>
<td>14.4917</td>
<td>1.42192</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>14.4545</td>
<td>1.37358</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>42</td>
<td>14.4722</td>
<td>1.37974</td>
</tr>
</tbody>
</table>

As shown in Table 3.3, the mean scores of the rater 1, the rater 2, and the rater 3 and their standard deviation of the control group are respectively (M=14.20, SD=1.60), (M=14.60, SD=1.15), and (M=14.57, SD=1.45), the scores mean and the standard deviation for the experimental group on pretest are (M=14.25, SD=1.34), (M=14.47, SD=1.40), and (M=14.52, SD=1.26). The scores mean for the three raters and their standard deviation for the control and the experimental groups are respectively (M=14.49, SD=1.37) and (M=14.45, SD=1.37).

In order to check that raters’ scores had inter reliability. Pearson Correlation test was used for analysis of inter-reliability of raters’ scores in pretest, as has said previously three instructors scored papers. The presupposition was that these three raters’ scores did not have correlation.
other words they were independent. If the Pearson Correlation coefficient(r) is less than 0.07, the presupposition (the dependency of the scores) is rejected.

Table (3.4) Interraters’ Reliability Test for Pretest

<table>
<thead>
<tr>
<th>Correlations</th>
<th>Rater.pre1</th>
<th>Rater.pre2</th>
<th>Rater.pre3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater.pre1</td>
<td>Pearson Correlation</td>
<td>1</td>
<td>.871**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Rater.pre2</td>
<td>Pearson Correlation</td>
<td>.871**</td>
<td>1</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
<tr>
<td>Rater.pre3</td>
<td>Pearson Correlation</td>
<td>.920**</td>
<td>.889**</td>
</tr>
<tr>
<td>Sig. (2-tailed)</td>
<td>.000</td>
<td>.000</td>
<td></td>
</tr>
<tr>
<td>N</td>
<td>42</td>
<td>42</td>
<td>42</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).

As above Table 3.4 shows Pearson's correlation coefficient (r) between rater 1 and two , between rater 1 and 3 ,between 2 and 3 are respectively 0.87 ,0.92 and 0.88 and P for all of them is 0.000 Since the correlation coefficient (r) is more than standard level (the standard level is 0.7) raters’ scores have acceptable inter-reliability.

### 3.3. Results of the Post test of the Groups

After the treatment having done , both experimental and control groups were administrated with second writing task, pretest topic was slightly modified to decrease the effect of pretest, learners at fourteen session of the semester wrote their essays about “What are the advantages and disadvantages of living in rural and urban areas?” The reason was to access whether the performance of the learners in experimental group who were exposed to GM explicit teaching differs significantly from those who were not.

Table (3.5) Results of posttest of the Groups

<table>
<thead>
<tr>
<th>Independent Samples Test</th>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Levene's Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>F</td>
<td>Sig.</td>
</tr>
<tr>
<td>GM.post</td>
<td>Control</td>
<td>20</td>
<td>12.50</td>
<td>4.110</td>
<td>2.416</td>
<td>.128</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>17.00</td>
<td>2.619</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD1(GM/Words).post</td>
<td>Control</td>
<td>20</td>
<td>.0690</td>
<td>.01792</td>
<td>.033</td>
<td>.857</td>
</tr>
<tr>
<td></td>
<td>Experimental</td>
<td>22</td>
<td>.1221</td>
<td>.01779</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table (3.5) displays the results of the two groups according to their performance after the teaching of experimental group. The mean scores of GM, LD1(GM to words), LD2(GM to clauses), LD3 and GM to T-units) in experimental group significantly are more than control group (the mean scores of GM in the experimental group is 17/0 and the control group is 12/5, the significance level is .0/.01, the mean scores of LD1 (GM to words) in the experimental group are respectively .0/.001, the mean scores of LD2 (GM to clauses) in the experimental group and the control groups are 1/10 and 0/.60, and the significance level is 0/.01, the mean scores of LD3 (GM to T-units) in the experimental group and the control groups are 1/25 and 0/.68, and the significance level is 0/.001). The mean scores of the experimental group for three types of lexical density are more than the control group so experimental group, outperformed the control group in terms of grammatical metaphor. On the basis of the results the null hypothesis is rejected so first question of research answered positively.

Raters' mean scores in the experimental group and the control group are respectively 16.25 and 15.30 so the experimental groups had better performance than the control group in terms of grammatical metaphor. And the significance level is (0.72). This finding is supported by a number of researchers (e.g., Christie 2002; Derewianka 2003; Foley1998; Halliday 1993a, 1993b, 1994, 2004; Halliday and Matthiessen1999; Painter, Derewianka and Torr 2007) have pointed out that mastery of grammatical metaphor, i.e. reconstrual of experience into more abstract, general level represents a landmark in the development of writing ability and affords them access to educational and academic knowledge (As cited in Libo, et al, 2008).

As mentioned previously three instructors scored the participants' writing, the result is brought in table (3.6).

Table (3.6) Statics Analysis of Raters' scores for posttest of the control and the Experimental groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Minimum</th>
<th>Maximum</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rater.post1</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>16.00</td>
<td>1.4510</td>
<td>14.0</td>
<td>19.0</td>
</tr>
<tr>
<td>Experimental</td>
<td>22</td>
<td>15.86</td>
<td>1.4572</td>
<td>13.5</td>
<td>19.0</td>
</tr>
<tr>
<td>Total</td>
<td>42</td>
<td>15.929</td>
<td>1.4380</td>
<td>13.5</td>
<td>19.0</td>
</tr>
<tr>
<td>Rater.post2</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>20</td>
<td>15.800</td>
<td>1.5252</td>
<td>13.5</td>
<td>19.0</td>
</tr>
</tbody>
</table>
As Table (3.6) indicates the scores mean of rater 1, rater 2, and rater 3 and their standard deviation for the control group and the experimental group are respectively (M=16.00, SD=1.45), (M=15.80, SD=1.52), and (M=15.85, SD=1.07), (M=15.86, SD=1.45), (M=15.61, SD=1.42) and (M=15.68, SD=1.07). The scores mean and the standard deviation for the three raters for the control and the experimental groups are (M=15.30, SD=1.38) and (M=16.25, SD=1.15). In order to check inter reliability of raters' scores on posttest Pearson's Correlation Test was utilized. Table (3.7) displays the result.

As Table 3.7 illustrates The Pearson’s correlation coefficient(r) between the rater 1 and 2, between the rater 1 and 3 and the rater 2 and 3 are 0.95 and 0.89 and 0.89 respectively. The presupposition was that these three raters’ scores did not have correlation. In other words, they are independent. If the significance level in the Pearson Correlation coefficient(r) is less than 0.7, the presupposition (the dependency of the scores) was rejected. Since the Correlation coefficient is more than 0.7, raters scores have acceptable inter-reliability.

### 3.4. Results of Questionnaire

A 15-item questionnaire was prepared by the researcher and it is only given to the students in the experimental group who experienced learning of GM to indicate their views regarding explicit instruction of GM. These 15 items were chosen after piloting and reducing the item pool.
The scaling technique used for the questionnaire was Likert scale. Each item option was assigned a number of scoring purposes (i.e. strongly agree =5, agree=4, neutral=3, disagree =2, and strongly disagree=1). With negatively worded items, these scores were reversed before the analysis. The quantitative analysis is aimed at examining whether experimental group' students had positive attitudes on explicit instruction of grammatical metaphor or not. To this end, a procedure involving running one-sample test was used. The analysis showed a significant positive effect of grammatical instruction on the group attitude. The learners were already instructed how to tick those answers that best represented their views, (see appendix D).

As seen in Table (3.8) the mean scores of students' attitudes is 3.41.

Table (3.8) One Sample Test

<table>
<thead>
<tr>
<th></th>
<th>One-Sample Test</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Test Value = 3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>t</td>
<td>df</td>
<td>Sig. (2-tailed)</td>
<td>Mean Difference</td>
<td>95% Confidence Interval of the Difference</td>
</tr>
<tr>
<td>attitude</td>
<td>5.539</td>
<td>21</td>
<td>.000</td>
<td>.41515</td>
</tr>
</tbody>
</table>

Table (4.9.2) Descriptive Statistics Analysis of Questionnaire

<table>
<thead>
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<th></th>
<th>N</th>
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<th>Std. Deviation</th>
<th>Std. Error Mean</th>
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<td>.35125</td>
<td>.07495</td>
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</table>

The table 3.8 Testifies to the statistical significance of the treatment effect on the group attitude 95 confidence, t= 5.53; df =21. However, in analyzing a questionnaire, having examined the t value and significance, one should look at the mean. If it is less than or equal to 3, the null hypothesis cannot be rejected, implying that a given treatment was no effective. If it is great than 3, the null hypothesis is rejected. As Table (4.9.2) Shows, the mean is greater than 3(3.42), allowing the researcher to reject the second null hypothesis.

3.4. Discussion

As it was mentioned in the previous parts, attempt was made to probe the effect of the explicit teaching of ideational grammatical metaphor on writing performance of EFL learners. Here, the control group students were compared with the experimental group students. For this purpose, the experimental group was just taught grammatical metaphor. They gained better results in recognition of GM and its function in academic writing so they were successful on the learning and using of it in writing than those who lacked this treatment. the final results of posttest( the writing production ) indicated that following the use of GM the scores of the experimental group on writing performance were significantly higher than the scores gained by the control group students, also, the mean scores of GM , LD1 (GM to Words), LD2(GM to Clauses) and LD3 (GM to T-units) were higher than the control so their writing performance displayed higher lexical density. Based on the activities done, the whole results seemed to support the general conclusion.
that the explicit teaching of GM had significant influence on the learners' achievement in the experimental group.

As a result, from the data available, the first research question with positive answer was accepted. In other words, analyzing the result of pretest and posttest administrated to the experimental and the control group discredited the first stated hypothesis of this study. This fact suggested that IGM was effective to the accomplishments of English writing performance.

The results of the current study is in complete agreement with some researches that some of them are going to be mentioned: Vandenbergen et al. (2003) discussed that nominalization, for instance, can be readily seen as a means of showing that you have gained mastery over a discipline and you have therefore appropriated some power for yourself. Besides, nominalization is a technique for taking a chunk of information, or even large body of knowledge, that you assume will be shared by your reader, and referring to it by a kind of shorthand. It shows that you and the reader belong to the same in-group- but it can also exclude those who don't belong to the in-group. Nominalization can be used as a device to show that the writer has power over the reader, and also as a device to exclude all those who are not experts or at least aspiring experts. It packs a huge amount of information into one short noun phrase. Application of IGM paves the way of the students to create a valuable academic writing. One of the differences between an academic work and simplified form of the same would be the lexical words that are used to express a meaning. For example in the following example (pollution of air) the meaning to be expressed is ‘air is pouted’ while it is accompanied by a set of nominalization that make it more wonderful writing. Such writing is not possible with the application of a verb or rather does not sound good. The advantage of application of IGM increases the lexical density.

The findings, also, are in line with those of similar studies. For instance, Afruz and Nabifar (2014) reported that Iranian high school students who were familiarized with IGM had better comprehension of reading than those who were not and their writing performance showed much more lexical density. This study also showed that IGM instruction improved learners writing performance, this result is also in complete agreement with Wang (2010); he realized that “in response to the teaching objectives of developing students’ grammatical metaphor awareness to improve their English writing, getting reflection and feedback from the students is essential for the teacher. From the teaching, students could understand the particular importance of grammatical metaphor in the evolution of scientific writing. Also, grammatical metaphor is a resource language used to condense information by expressing concepts in an incongruent form to “objectification” and “abstraction” in the form of nominalized processes and they could understand that English had rich expressions for the same thing and nominalization was the most powerful resource for creating grammatical metaphor. According to students’ responses, their difficulties were in the terms of grammatical metaphor, such as ideational metaphor, metaphor of transitivity, interpersonal metaphor, interpersonal metaphor of modality and mood, because they had confusion between the terms of grammatical metaphor and the terms in traditional grammar, such as participants, processes or circumstances. In addition, they also had application problems” (Wang, 2010, p.6).
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References


