Differential effect of different textual enhancement formats on intake

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Abstract

In this study, the differential effect of different textual enhancement formats on the intake of English conditional type II was investigated. The participants were 101 female learners of English. A reading comprehension text was distributed among five experimental and one control group. The conditional structures in the text were enhanced differently for different groups. Final results revealed that the underline and bold TE formats were more effective; however, the created format by the present researchers did not turn out to be an effective TE format. Final findings indicated that the type of TE format had differential effect on the intake of the target structure.

1. Introduction

According to Schmidt (1994a, 1994b, 1995, 2001), when target language forms are made more salient, there are more likely to be paid attention to by language learners and become intake or “the product of attention” (Simard, 2009, p. 125). A number of other studies (Leow, 1997b; Robinson, 1996; Rosa & O’Neill, 1999; Schmidt & Frota, 1986) also endorse the view that increased attention to form brings about more noticing.

After Sharwood Smith (1981, 19991, 1993) introduced his input enhancement hypothesis and adduced it as a technique to trigger noticing of language forms in the input, many researchers (e.g., Doughty, 1991; Fotos, 1994, 1998; Lightbown & Spada, 1990; Nassaji, 1999) embarked on investigating

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the viability of this hypothesis by resorting to different techniques of input enhancement one of which is 
textual enhancement (TE) which, according to Simard (2009), is the typographical manipulation of 
language forms in order to make them more salient so that language forms are more easily noticed by 
language learners. Its main objective is to draw learners’ attention to language forms by enhancing the 
saliency of these forms. There have been different ways to increase the saliency of target forms, such as 
underlining, capital, bold, different color, etc.

There is a great deal of controversy concerning the effectiveness of TE. Some researchers such as 
Alanen (1995) and Leow (1997a, 2001) reject the positive effect of TE on the intake of target forms, 
however, a set of other studies (e.g., Jourdenaise, Stauffer, Boyson & Doughty, 1995; Shook, 1994) report 
the positive role of TE on triggering the noticing and intake of language forms. What this contradictory 
literature warrants is a dire need for further research, therefore, in order to contribute to the existing 
literature on TE, this study was launched. In this study, however, there was an attempt to investigate the 
influence of the type of TE on learners’ noticing and intake of the English conditional type II. There was 
also an attempt to examine the effect of a new TE format which is called choice TE format and introduces 
both correct and incorrect forms in the reading text while the incorrect forms are identified by an asterisk 
and follow the correct ones so that the learners are first exposed to the correct forms. The choice TE 
format is more explicit, in nature, compared to other TE formats, because both correct and incorrect forms 
are identified, however, it is not totally explicit since there is no metalinguistic explanation as to how the 
target structure works. Here is a sample sentence from the experimental reading comprehension task given 
to subjects:

…If the employer (had/has*) more money, he would increase his workers’ salary…

2. Literature review

As Han et al (2008) put it, the majority of TE studies have adopted a comparative approach where TE 
is usually compared to another strategy. Most studies have also had a pretest, immediate posttest design 
and the target structure has usually been one or more morphosyntactic elements. The literature on TE is 
teeming with contradictions with some studies rejecting the positive effect of TE on intake, 
comprehension or acquisition (e.g., Alanen, 1995; Leow, 1997a, 2001) and some others reporting the 
influence of TE on noticing, intake or the acquisition of linguistic features (e.g., Jourdenaise et al, 1995; 
Shook, 1994).

2.1. Major studies that found TE effective

Shook (1994) investigated the effect of TE on 125 Spanish learners, Shook enhanced the target features 
using bold and capital TE formats. He had three groups, one control and two experimental, his results 
revealed that TE was effective in bringing about the intake of the target forms. Alanen (1995) studied the 
effects of TE (italics) and explicit rule presentation on semi artificial Finnish locative suffixes and 
consonant gradation. The performance of subjects exposed to TE was significantly different from the 
control group, however, their performance was lower compared to explicit rule presentation group. 
Jourdenaise et al (1995) enhanced the target features with four different techniques (bold, underline, 
different font, shadow). He also found TE effective. Simard (2009) in a study on the differential effect of 
different TE formats applied seven different types of TE. She found that capital group and three cue 
group, which was a combination of three different TE formats, outperformed the other groups. What 
Simard concluded was that different types of TE can be differentially effective. Farahani and Sarkhosh 
(2012) also studied the differential effect of different TE formats and like Simard reported the differential 
effect of different TE formats. They applied five different types of TE (underline, bold, italic, choice,
background). They reported that underline TE format, compared to other formats and the control group, was more effective in bringing about the intake of the English subjunctive mood. Lee (2007) studied the effect of TE on 259 high school students. The texts Lee gave to the participants were different in terms of the way the target features were typographically enhanced and also the degree of familiarity of the content. He finally found TE effective. Also, similar to Overstreet (1998), Lee found that TE had a negative effect on comprehension.

2.2. Major studies that found TE ineffective

Overstreet (1998) investigated the effect of TE (underline, bold, enlarged letters, and different font) and content familiarity on subjects’ intake of Spanish preterit and imperfect. He found no effect of TE on intake but found a negative effect of TE on comprehension. Izumi (2003), likewise, found no effect of TE on the intake of the target feature of his study which was the English relative clauses. Radwan (2005) studied the effect of TE on dative alternation. He saw his study distinctive from the majority of studies in the field in that he had not resorted to morphological elements but had chosen dative alternation which was a syntactic feature. Radwan had four groups, the first group was the TE enhanced condition, the second group was, rule oriented condition, the third group was content oriented condition and the last group was the control group. The results revealed that the students who received explicit instruction outperformed those who did not receive that instruction. The study found support for those who believe in providing learners with explicit instruction of form. He claimed that TE or any other method that does not give explicit knowledge about the target forms is not sufficient for learning. He also found that higher levels of awareness correspond positively with language development. White (1998) investigated the effect of TE (enlargement, different combinations of bold, italics and underline) on the use of third person singular possessive determiners. The findings revealed that TE did not lead to the correct use of the target structures but augmented the frequency of the use of these features. Combs (2008) examined the effect of TE on 36 lower-intermediaye learners of English. Combs divided the participants into three experimental and one control group. The first experimental group experienced textually enhanced material with training on topic familiarity while the second group did not have topic familiarity training but enjoyed TE. The third group enjoyed topic familiarity training but did not experience TE. The control group however, received neither topic familiarity nor TE. The final findings suggested that TE was ineffective, topic familiarity, as well, had no effect on the acquisition of form. Leow (1997a) examined the effect of TE on 84 English Spanish learners. The experimental task consisted of four conditions: a) a long unenhanced text, b) a long enhanced text, c) a short unenhanced text and d) a short enhanced text. Leow found TE ineffective in the improvement of the intake of the target form. Leow (2001), in another study on the effect of textual enhancement in L2 reading, investigated the effect of TE on 74 adult English Spanish learners’ intake of formal/polite imperative. He found no effect of TE neither for intake of the target feature nor for the comprehension of the text.

3. Method

3.1. Design

The design of the study is quasi-experimental since an experimental design needs, at least, three qualities to be considered truly experimental: a) Pretest, b) Control Group and c) Random Selection of Participants. The third quality is absent in this study. In a similar vein, a vast majority of studies on TE have failed to incorporate random selection of participants in their studies (see literature review). This is totally natural and easy to understand considering the difficulty of assigning participants to different
groups which means dismantling the organization of classes in an institute or a university which will entail the resistance of the authorities and will make the students cognizant of the research focus of the task.

3.2. Participants

The present study consisted of 101 female participants who were EFL learners in Iran Language Institute (one of the oldest and most well-known language institutes in Iran). Their age ranged between 14 and 21 (M = 16.23, SD = 1.21) and their level of education ranged between high school and BA except for one MA. All subjects were Turkish speakers who were proficient in both Turkish and Persian (official language of Iran). In English, they were at the pre-intermediate level of proficiency according to the institute’s program. They had studied English about 22 months in that institute: three and half hours of instruction per week (two days a week; each day, one hour and forty-five minutes). The Participants had taken the placement test when enrolling in this institute. In addition, in the end of each term they were given an achievement test in order for the qualified ones to pass to the next level. Therefore, they were almost at the same level of English proficiency. However, in order to be on the safe side and make sure that the participants were at the same level of proficiency, at least, regarding their knowledge of English conditional type II, a pretest was administered.

3.3. Materials

3.3.1. Reading texts

A reading text of 297 words at pre-intermediate level was chosen. For each of the five experimental groups the conditional structures within the text were enhanced differently (italics, bold, underline, choice). However, for the control group, there was no intervention and the text was neutral. In order to make sure that the text was of appropriate level of difficulty, it was piloted on a group of learners who had the same features as the target groups. In so doing, the text was administered to a class of pre-intermediate learners with 18 students at the same institute. In addition to asking the learners orally about the difficulty of the text, ten comprehension questions followed the text. The learners’ oral reports confirmed the appropriateness of the text for their level. Also, the comprehension questions were answered 75 percent correctly which was suggestive of the fact that the text was almost well comprehended by the pilot group. In piloting the text, the researchers also examined the reliability of the text which turned out to be 0.80.

3.3.2. Multiple-choice recognition tests

Two parallel versions of a multiple-choice recognition test were created (A & B), one for the pretest and one for the posttest, as this method is most commonly used to investigate the effect of TE on intake (Leow, 1997a; Overstreet, 1998). Moreover, by employing multiple-choice test, the researchers prevented the subjects from applying avoidance strategies and directed their performance toward the target structures. Each version of the test comprised eighteen multiple choice questions, twelve on conditional type II and six fillers. The equivalence of two tests was confirmed during a pilot study in which the twelve conditional questions of pretest and posttest were put together into one test of 24 questions on English conditional type II. Odd numbers were assigned the pretest questions and even numbers the posttest questions to ensure the best mixture of the pretest and the posttest questions. The 24 multiple choice questions were given to an advanced class of EFL learners at the same institute who had already learned conditional type II according to the institute’s syllabus and their teachers’ reports to the researchers. The mean of the class was 77 which indicated that the subjects had an ample knowledge of the target structure.
The two parts of the test, that is, odd numbers (pretest questions) and even numbers (posttest questions) were scored separately. In order to investigate if the two versions were parallel, the correlation coefficient between two parts (odd numbers and even numbers) was computed which turned out to be 0.76.

3.4. Procedure

Present research was conducted in Iran Language Institute in Orumieh (a city in north west of Iran). Before conducting the research, the researchers arranged a meeting with the teachers who were supposed to carry out the study in their classes to inform them about the exact administration process they had to follow. In order to make sure that the participants had no prior knowledge of English conditional type II, the researchers analyzed the syllabi they had covered till then and also inquired teachers if they had taught conditional type II to their students already. The first session, the teachers administered the demographical information questionnaire and the pretest. The pretest was one of the two versions of the multiple choice recognition test (A or B) and was administered to ensure that subjects had no prior knowledge of the target structure and to verify if all groups were equal and comparable at the pretest. The scores of subjects on the pretest revealed that they had almost no knowledge of the English conditional type II and there was no significant difference between the six groups that participated in the study. The next session, the reading comprehension passages were administered. The text was enhanced differently for different groups. The subjects read the passages and the posttest immediately followed. The posttest was the version of the multiple-choice recognition test that subjects had not completed during the pretest. To score the test, each correct answer was given three points. As stated earlier, there were eighteen questions for pretest and eighteen for posttest. The questions were parallel out of which six were fillers and twelve were on conditional type II in both tests. Only the twelve conditional questions were corrected by the researchers; therefore, the subjects’ scores ranged from zero to thirty-six in each test.

4. Results

In order to analyze the relevant data in this experiment, the Statistical Package for Social Sciences (SPSS), version 18 was employed. The level of significance was set at 0.05. The descriptive statistics for the five groups at pretest are displayed in Table 1.

Table 1. Descriptive statistics for the five groups at pretest

|       | N   | Minimum | Maximum | Mean  | Std. Deviation |
|-------|-----|---------|---------|-------|----------------|
| Control | 22  | .00     | 15.00   | 6.5455| 5.28905        |
| Choice   | 22  | .00     | 15.00   | 5.3182| 4.80462        |
| Underline | 20  | .00     | 15.00   | 6.3000| 4.85690        |
| Bold    | 19  | .00     | 18.00   | 7.4211| 5.32620        |
| Italic  | 18  | .00     | 15.00   | 6.6667| 5.30261        |
| Total   | 101 | .00     | 18.00   | 6.4158| 5.05622        |
To ensure the normality of the distribution of the five groups at pretest, a Kolmogorov-Smirnov test was run. The results revealed that there was normal distribution of scores in each group at pretest (p > .05) except for the choice (p < .05) (see Table 2).

Table 2. The test of normality for the five groups at pretest

| Group   | Kolmogorov-Smirnov Statistic | df | Sig. |
|---------|-----------------------------|----|------|
| Pre-test| Control                     | .158| 22  | .163 |
|         | Choice                      | .185| 22  | .048 |
|         | Underline                   | .152| 20  | .200 |
|         | Bold                        | .184| 19  | .089 |
|         | Italic                      | .200| 18  | .056 |

Therefore, the researchers decided to use non-parametric statistics. In so doing, to compare the mean scores of the five groups at the pretest, a Kruskal-Wallis test was conducted. As Table 3 displays, the highest ranking was for Bold group at 56.42 and the ranking for the other groups were respectively as follows: there was 52.22 for the Italic group, 51.59 for the Control group, 50.85 for the Underline group, and 44.86 for the Choice (see Table 3).

Table 3. The ranks for the five groups at pretest

| Group   | N   | Mean Rank |
|---------|-----|-----------|
| Pre-test|     |           |
| Control | 22  | 51.59     |
| Choice  | 22  | 44.86     |
| Underline | 20 | 50.85     |
| Bold    | 19  | 56.42     |
| Italic  | 18  | 52.22     |
| Total   | 101 |           |

Table 4 shows a chi-square statistic that has a probability of p = .789 at 4 degrees of freedom. Consequently, it was concluded that there weren’t statistical differences between the five groups at pretest.

Table 4. Test Statistics for the five groups at pretest

| Pre-test |                  |
|----------|------------------|
| Chi-square | 1.712        |
| df       | 4              |
| Asymp. Sig. | .789         |
The descriptive statistics for the five groups at the posttest are illustrated in Table 5.

Table 5. Descriptive statistics for the five groups at posttest

|        | N  | Minimum | Maximum | Mean  | Std. Deviation |
|--------|----|---------|---------|-------|----------------|
| Control| 22 | .00     | 15.00   | 6.000 | 4.81070        |
| Choice | 22 | .00     | 15.00   | 6.318 | 4.65358        |
| Underline | 20 | 3.00    | 33.00   | 21.450| 10.12800       |
| Bold   | 19 | 6.00    | 33.00   | 22.263| 8.08182        |
| Italic | 18 | .00     | 15.00   | 6.833 | 4.91397        |
| Total  | 101| .00     | 33.00   | 12.336| 10.11660       |

To ensure the normality of the distribution of the five groups at posttest, a Kolmogorov-Smirnov test was employed. The results revealed that there was normal distribution of scores in each group at posttest (p> .05), except for the Control and the Underline (p< .05) (see Table 6).

Table 6. The test of normality for the five groups at posttest

| Group     | Statistic | df | Sig. |
|-----------|-----------|----|------|
| Post-test | Control   | .188 | 22  | .042 |
|           | Choice    | .171 | 22  | .093 |
|           | Underline | .208 | 20  | .023 |
|           | Bold      | .142 | 19  | .200 |
|           | Italic    | .171 | 18  | .174 |

For this reason, the researchers employed non-parametric statistics. In doing so, to compare the mean scores of the five groups at the posttest, a Kruskal-Wallis test was applied. As Table 7 displays, the highest rankings were for the Bold and the Underline groups at 79.29 and 75.70 respectively and the ranking for the other groups were correspondingly as follows: there was 36.47 for the Italic group, 34.27 for the Choice group, and 32.73 for the Control group.

Table 7. The ranks for the five groups at posttest

| Group      | N  | Mean Rank |
|------------|----|-----------|
| Post-test  |    |           |
| Control    | 22 | 32.73     |
| Choice     | 22 | 34.27     |
| Underline  | 20 | 75.70     |
| Bold       | 19 | 79.29     |
| Italic     | 18 | 36.47     |
| Total      | 101|           |
Table 8 shows a chi-square statistic that has a probability of $p=.000$ at 4 degrees of freedom. As a result, it was concluded that there were statistical differences between the five groups at posttest.

Table 8. Test Statistics for the five groups at posttest

|                | Post-test |
|----------------|-----------|
| Chi-square     | 52.778    |
| df             | 4         |
| Asymp. Sig.    | .000      |

The Kruskal-Wallis test revealed that there was a difference somewhere among the means; however, the precise location of differences was not clear. To locate the exact place of differences, the first two groups with the highest rankings – the Bold and the Underline – were selected and Mann-Whitney U tests were applied. The Test Statistics Table for the Bold group indicated that there was no significant difference between the Underline and Bold groups ($U= 183$, $p>.05$), but the differences between the Bold and the other groups were significant which were as follows: the Bold and the Italic ($U= 19.5$, $p<.05$), the Bold and the Choice ($U= 20.5$, $p<.05$), and the Bold and the Control ($U= 18.5$, $p<.05$) (see Tables 9 & 10).

Table 9. Rank table for the Bold at posttest

| Groups      | N  | Mean Rank | Sum of Ranks |
|-------------|----|-----------|--------------|
| Post-test   |    |           |              |
| Bold        | 19 | 20.37     | 387.00       |
| Underline   | 20 | 19.65     | 393.00       |
| Total       | 39 |           |              |
| Post-test   |    |           |              |
| Bold        | 19 | 26.97     | 512.50       |
| Italic      | 18 | 10.58     | 190.50       |
| Total       | 37 |           |              |
| Post-test   |    |           |              |
| Bold        | 19 | 30.92     | 587.50       |
| Choice      | 22 | 12.43     | 273.50       |
| Total       | 41 |           |              |
| Post-test   |    |           |              |
| Bold        | 19 | 31.03     | 589.50       |
| Control     | 22 | 12.34     | 271.50       |
| Total       | 41 |           |              |

Table 10. Test statistics for the comparison of the Bold group with the other groups at posttest

|                | Mann-Whitney U | Wilcoxon W | Z   | Asymp. Sig. (2-tailed) |
|----------------|----------------|------------|-----|------------------------|
| Post-test      |                |            |     |                        |
| Bold           |                |            |     |                        |
| Underline      | 183.000        | 393.000    | -0.199 | .843                   |
| Post-test      |                |            |     |                        |
| Bold           |                |            |     |                        |
| Italic         | 19.500         | 190.500    | -4.628 | .000                   |
| Post-test      |                |            |     |                        |
| Bold           |                |            |     |                        |
| Choice         | 20.500         | 273.500    | -4.953 | .000                   |
| Post-test      |                |            |     |                        |
| Bold           |                |            |     |                        |
| Control        | 18.500         | 271.500    | -5.007 | .000                   |
The Test Statistics Table for the Underline group demonstrated that there was no significant difference between the Underline and Bold groups (U= 393.5, p>.05) (see Table 10), but the differences between the Underline and the other groups were significant which were as follows: the Underline and the Italic (U= 38, p<.05), the Underline and the Choice (U= 40.5, p<.05), and the Underline and the Control (U= 40.5, p<.05) (see Tables 11 & 12).

Table 11. Rank table for the Underline at posttest

| Groups | N  | Mean Rank | Sum of Ranks |
|--------|----|-----------|--------------|
| Post-test | Underline | 20  | 26.60 | 532.00 |
|          | Italic    | 18  | 11.61 | 209.00 |
|          | Total     | 38  |       |        |
| Post-test | Underline | 20  | 30.48 | 609.50 |
|          | Choice    | 22  | 13.34 | 293.50 |
|          | Total     | 42  |       |        |
| Post-test | Underline | 20  | 30.48 | 609.50 |
|          | Control   | 22  | 13.34 | 293.50 |
|          | Total     | 42  |       |        |

Table 12. Test statistics for the comparison of the Underline group with the other groups at posttest

| Groups | Mann-Whitney U | Wilcoxon W | Z     | Asymp. Sig. (2-tailed) |
|--------|----------------|------------|-------|-----------------------|
| Post-test | Underline | 38.000 | 209.000 | -4.185 | .000 |
|          | Italic    |          |        |          |      |
| Post-test | Underline | 40.500 | 293.500 | -4.552 | .000 |
|          | Choice    |          |        |          |      |
| Post-test | Underline | 40.500 | 293.500 | -4.553 | .000 |
|          | Control   |          |        |          |      |

To investigate the impact of the different types of TE on the intake of the intended grammatical structure more precisely, the difference of scores at pretest and posttest was calculated and the related statistical analyses were conducted to them. The descriptive statistics for the difference of scores at pretest and posttest for the five groups are illustrated in Table 13.

Table 13. Descriptive statistics for the difference of scores at pretest and posttest

| Groups | N  | Minimum | Maximum | Mean   | Std. Deviation |
|--------|----|---------|---------|--------|----------------|
| Control | 22 | -15.00  | 12.00   | -5.5455| 6.84333        |
| Choice  | 22 | -12.00  | 9.00    | 1.0000 | 6.86607        |
| Underline | 20 | -3.00   | 30.00   | 15.1500| 10.77167       |
| Bold    | 19 | .00     | 33.00   | 14.8421| 8.15314        |
| Italic  | 18 | -15.00  | 12.00   | .1667  | 7.45378        |
| Total   | 101| -15.00  | 33.00   | 5.9208 | 10.76260       |

To ensure the normality of the distribution of the difference of the scores at pretest and posttest for the five groups, a Kolmogorov-Smirnov test was utilized. The results revealed that there was normal
distribution of scores in the difference of the scores at pretest and posttest in each group (p > .05) (see Table 14).

Table 14. The test of normality of the five groups for the difference of scores at pretest and posttest

| Group      | Kolmogorov-Smirnov Statistic | df | Sig. |
|------------|-----------------------------|----|-----|
| Difference | .152                        | 22 | .200|
| Control    | .176                        | 22 | .075|
| Choice     | .156                        | 20 | .200|
| Underline  | .153                        | 19 | .200|
| Bold       | .158                        | 18 | .200|
| Italic     | .158                        | 18 | .200|

The result of the Levene's test of homogeneity of variance also revealed that the five groups enjoyed homogenous variance (F (4, 96) = 2.304, p > .05). Therefore, to compare the mean scores of the difference at pretest and posttest for the five groups, a one-way ANOVA was conducted. The F-observed value was 19.994. This amount of F-value at 4 and 96 degrees of freedom was higher that the critical value of F (see Table 15).

Table 15. One-Way ANOVA on the difference of scores at pretest and posttest

| Sum of Squares | df | Mean Square | F       | Sig.  |
|----------------|----|-------------|---------|-------|
| Between Groups | 5264.335 | 4 | 1316.084 | 19.994 | .000 |
| Within Groups  | 6319.031 | 96 | 65.823  |       |      |
| Total          | 11583.366 | 100 |          |       |      |

Thus, there is a significant difference between the mean scores of the difference of scores at pretest and posttest for the five groups (F (4, 96) = 19.994, p < .05). To locate the exact place of differences, a Scheffe’s test was utilized. The results indicated that, at the level of 0.05, there was significant difference between the Bold group and the three groups of Control, Choice and Italic and also between the Underline group and the three groups of Control, Choice and Italic (see Table 16).

Table 16. Scheffe’s test for the comparison of the means scores for the difference between pretest and posttest for the five groups

| (I) group | (J) group | Mean Difference (I-J) | Std. Error | Sig. | 95% Confidence Interval |
|-----------|-----------|-----------------------|------------|------|------------------------|
|           | Control   | -1.54545              | 2.44621    | .982 | -9.2290 - 6.1381       |
|           | Underline | -15.69545*            | 2.50662    | .000 | -23.5687 - 7.8222      |
|           | Bold      | -15.38756*            | 2.54093    | .000 | -23.3686 - 7.4065      |
|           | Italic    | -.71212               | 2.57853    | .999 | -8.8113 - 7.3870       |
| Choice  | Control     | 1.54545 | 2.44621 | .982 | -6.1381 | 9.2290 |
|        | Underline  | -14.15000* | 2.50662 | .000 | -22.0233 | -6.2767 |
|        | Bold      | -13.84211* | 2.54093 | .000 | -21.8232 | -5.8610 |
|        | Italic    | .83333 | 2.57853 | .999 | -7.2658 | 8.9325 |
| Underline | Control  | 15.69545* | 2.50662 | .000 | 7.8222 | 23.5687 |
|        | Choice     | 14.15000* | 2.50662 | .000 | 6.2767 | 22.0233 |
|        | Bold       | .30789 | 2.59914 | 1.000 | -7.8560 | 8.4718 |
|        | Italic     | 14.98333* | 2.63591 | .000 | 6.7039 | 23.2627 |
| Bold   | Control    | 15.38756* | 2.54093 | .000 | 7.4065 | 23.3686 |
|        | Choice     | 13.84211* | 2.54093 | .000 | 5.8610 | 21.8232 |
|        | Underline  | -3.0789 | 2.59914 | 1.000 | -8.4718 | 7.8560 |
|        | Italic     | 14.67544* | 2.66856 | .000 | 6.2935 | 23.0574 |
| Italic | Control    | .71212 | 2.57853 | .999 | -7.3870 | 8.8113 |
|        | Choice     | -8.3333 | 2.57853 | .999 | -8.9325 | 7.2658 |
|        | Underline  | -14.98333* | 2.63591 | .000 | -23.2627 | -6.7039 |
|        | Bold       | -14.67544* | 2.66856 | .000 | -23.0574 | -6.2935 |

*. The mean difference is significant at the 0.05 level.
5. Discussion

The purpose of the present study was to investigate the differential effect of different TE formats on the intake of English conditional type II. The Underline and Bold TE formats were more effective than the other formats investigated in this study. Therefore, the results are in line with Simard's (2009)'s results in that she also found different TE formats differentially effective. Simard's (2009) study is the only study conducted on the differential effects of different types of TE and the present study confirmed its results in that the different types of TE can be differentially effective.

The findings of the present study also confirm the findings of the studies carried out in the field of first language acquisition in which the type of typographical cue or TE format has made differential effect in the reading process or the retention of information. Shebilske and Rotondo (1981) showed that the use of capital letters made learners remember the information they were presented in their first language. Mark (1966, cited in Simard, 2009) also showed that the type and combination of the typographical cues made subjects react differently to the instructions. Another piece of evidence comes from Foster and Coles (1977). They reported that the type of typographical cue is able to cause different reactions from the participants to the task they are given.

Why Bold TE format proved to be more effective than the other formats might be because of a very common learning strategy among the Iranian learners. In simpler words, Iranian learners, in order to emphasize the salient points in their textbooks, usually highlight or underline these points. This is not an assertion but a very popular learning strategy among the Iranian learners, however, in order to justify this claim, at least, among the participants of the present study, the researchers asked the participants orally in class about the most common techniques they use to emphasize the important points in their textbooks. The vast majority reported highlighting and underlining. This part was done orally because it was not the focus of the present study and was done in order to shed some light on the findings of the present study, however, future research should investigate this issue more systematically. The Bold TE format resembles highlighting more than other formats, that is, it is the most similar one to highlighting among the TE formats investigated in this study. Therefore, the most cogent argument as to why Bold and Underline proved more effective than the other formats is that learners felt a sense of affinity between their learning strategies (underlining and highlighting) and the TE formats used in the text (Underline and Bold). Farahani and Sarkhosh (2012) as well, found underline TE format to be more effective than the other formats in the intake of English subjunctive mood among upper-intermediate EFL learners.

The other reason as to why Underline turned out effective in triggering the noticing and the intake of the target structure of the present study is that this TE format is an additive format in that when we underline a particular form in the text, we add something extra to the text, and this added part which is the line drawn under the target form attracts the attention of the reader. However, this added feature is absent in other TE formats, for instance, when italicizing a particular form, nothing is added to the text.

Regarding the created TE format of this study, that is, Choice TE format, the results revealed that it did not turn out to be effective in stimulating the noticing or intake of the target structure. This result backs the finding of Farahani and Sarkhosh’s (2012) study in which they found no impact of choice format on the upper intermediate EFL learners’ intake of English passive voice. Why choice TE format did not induce the noticing or intake of the target structure seems to be because in the other TE formats, subjects read the text and rarely stopped at the enhanced points to figure out why the form is enhanced, while at choice TE format they might have paused at every enhanced structure and contemplated why one form was asterisk marked as incorrect and the other one was not asterisk marked and was considered correct. Choice TE format, at first look, seems to be able to trigger noticing better than the other formats because it introduces both correct and incorrect forms and is almost semi-explicit. However, it had almost no effect on triggering the noticing of the target form. The other reason as to why this format did not turn out
effective is that when presented with both correct and incorrect forms, the participants began to ponder why a particular form was incorrect and the other one was correct. Since there were no explanations provided regarding how the target form worked or why the asterisk marked structure was incorrect, the participants were baffled and this fact, per se, the researchers hypothesize, led to their poor performance at posttest.

6. Conclusion

The final findings revealed that a) enhancing a grammatical feature textually can bring about noticing and intake of that feature and this finding is in line with the previous research (e.g., Jourdenaise et al., 1995; Lee, 2007; Shook, 1994), b) different TE formats are differentially effective in inducing the noticing and the subsequent intake of the target structure, c) Bold and Underline TE formats are effective formats in bringing about the noticing of the target structure while italic is not, and d) choice format is an ineffective TE format.

There is a crucial implication for material developers since they have a wide range of TE formats available at their disposal, however, the research results regarding their effectiveness vary greatly (e.g., Izumi, 2003; Lee, 2007; Lee & Huang, 2008). According to the results of the present study, Bold and Underline TE formats are effective ones in directing the learners’ attention to the intended language form. Therefore, material developers had better apply these two formats in enhancing the saliency of intended forms in the reading texts.

Another important implication of the present study is for researchers to pay more heed to the learning strategies of learners. According to this study, the participants reported that they often used underlining or highlighting in order to emphasize the salient parts in their textbooks, and as the results indicated, Underline and Bold TE formats were more effective than other ones in causing the noticing. Bold TE format resembles highlighting more than other formats used in this study and as it was revealed Bold group’s performance at the posttest was the highest and the Underline group was the second highest. Repercussions are that a particular TE format, per se, might not be always effective for all learners, however, what renders a particular format effective is how it interacts with a learner’s learning strategies and how well it fits the manner in which the learner herself emphasizes salient points in a text. This entails the implications for future research that should unravel the nature of the relationship between learners’ learning strategies and different TE formats.

A suggestion is in order, the researchers of the present study believe that teachers and material developers had better allow the students to do TE themselves, that is, the teacher teaches the intended structure and then introduces the reading passage to the learners and asks them to enhance the taught structure wherever they find it in the text. The advantage of this approach is that learners will apply the TE format which is in line with their own learning strategies and as the results of the present study divulged TE can be more effective when it is allied with the learners’ learning strategies. However, the disadvantage of this approach is that learners might grow more conscious of the form, and this is not in line with the objectives of TE which tries to teach forms while the attention is on meaning and content.

One limitation of the present study is that we used an immediate posttest design which behooves future researchers to investigate the differential effect of TE formats by using delayed posttest designs. Another limitation is that the participants were all female. A more serious limitation, however, is the type of assessment used. Leow (2001) believed that a more appropriate type of assessment would be to collect oral protocol by using on line measurement instruments because post exposure measurement instruments do not give us information about on line input processing and what subjects pay attention to.
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