The Effect of Textual Enhancement through Technology on the Intake of Active and Passive Voice and Belief about Grammar Instruction

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Abstract

The study was an attempt to look into the effect of technology-enhanced input through multimedia (power point presentation) on intermediate male and female learners’ intake of active and passive tenses as well as gender differences. Moreover, it was aimed to explore the learners’ perceptions about technology-based grammar learning. This research was conducted within approximately two months including eight two-hour sessions of instruction in Kish Air institute in Chalous, Iran. 60 homogenous students were divided into one control and one experimental groups. The experimental group received enhanced input through multimedia instruction (power point presentation), whereas the control group was exposed to non-enhanced input via whiteboard and teacher’s explanation (traditionally). The results revealed that the experimental group outperformed the control group. Moreover, it was found that there was a positive change in the learners’ beliefs regarding the application of technology. However, gender differences were found not to be as significant as expected since both male and female groups had almost the same response to the treatment sessions. Findings suggest that learning a new grammatical form through form-focused strategies (i.e. using enhanced input which is highlighted, bolded, or underlined) and power point presentation (PPT) give teachers the chance to save time in the classroom and allocate more time to less-skilled learners.

Keywords: Focus on form (FONF), focus on forms (FONFs), intake, textual enhancement (TE), Computer-assisted language learning (CALL), Power point presentation (PPT).
Introduction
Teaching grammar has always been a concern for teachers and teacher educators. Approaches to teaching grammar have been changing over time. Teaching and learning grammar seems to be crucial in SLA because it helps us to identify the components of any language (Nahavandi & Mukunden, 2013). It appears that teachers have always been in doubt in terms of teaching linguistic forms. Apparently, they may pose some questions whether teaching grammar helps students make fewer errors; grammar workbook exercises are worthwhile; and how they are able to turn the class into a place where students directly participate in the learning process. To answer the questions above, grammar teaching methodologies were introduced.

As to the Grammar Translation Method (GTM), linguistic forms were taught deductively through the study of grammar rules and drills. There was no attempt to focus on meaning (Nassaji & Simord, 2010); therefore, teaching grammar was mechanical. Audio Lingual Method (ALM), on the other hand, was concerned with grammar inductively; however, students might be unable to use acquired skills to real communication outside the classroom (Nassaji & Simord, 2010). Then, Communicative Language Teaching (CLT) appeared to emphasize the usage of the target linguistic system through communicative strategies, such as negotiation of meaning, information sharing, and interaction (Combs, 2008). After CLT, attitudes toward grammar have drastically been changing in favor of teaching grammar regardless of directly attracting the learners’ attention to specific linguistic form.

In this regard, Long (1991) distinguished the notion of focus on forms (FONFs) in contrast with focus on form (FONF). FONFs is a traditional approach of teaching grammar (similar to GTM and ALM) (Sarkhosh & Farahani, 2012) in which language is divided into discrete elements that each element will be taught item by item. More recently teaching grammar through FONF has, to a large extent, been attended by second language scholars. In fact, in FONF the primary emphasis is on meaning rather than linguistic forms (as in CLT and natural approach). The so-called FOF approach to teach grammar, according to Long (1991), aims to indirectly involve the learners in grammar learning.

As Doughty (2001) mentioned, students must notice the linguistic forms through meaningful communication context. According to Nassaji and Fotos (2011), “in recent years, however, language-teaching professionals have become increasingly aware that teaching approaches that put the primary focus on meaning with no attention to grammatical forms are inadequate” (p.8). As Nassaji (2010) argues, teaching grammar within the context of meaningful interaction is an active process that results in both learners and teachers’ collaboration while implicitly teaching the target form. Form-focused instruction (which is parallel with FONF) can be fulfilled by adhering to various theoretical issues aiming to provide an interactive atmosphere for the learners to learn grammar.

One of the theoretical bases of FONF is input enhancement that highlights the role of noticing (Schmidt, 1995). Input enhancement hypothesis (Izumi, 2002) applies various techniques emphasizing visual and aural features of input by focusing on meaning, which, according to Nassaji and Fotos (2011), involves teaching forms in the context of meaningful interaction. Textual enhancement (TE) is a form of implicit input enhancement hypothesis through which targeted linguistic forms are noticed by TE formats (e.g. bolding, underling, italicizing, capitalizing, and color-coding) to attract the learners’ attention to target forms. TE formats seems
to have positive effect on the learners’ intake of linguistic forms (e.g. Ayiewbeg, 2013; Jahan & Kormos, 2013; Park & Nassif, 2013; Sarkhosh & Farahani, 2012; Simord, 2009) in that they make the target input (i.e. linguistic forms) more salient. For example, in a study by Simord (2009), he investigated the impact of the saliency of target forms on the participants’ noticing of plural markers. The various TE formats (bolding and highlighting) were found to be practical in learning the target forms while capitalized plural markers were highly noticed by the participants. In the same fashion, Mayen (2013) argued that applying visual prompts combined with textual enhancement resulted in more focal awareness or noticing of Spanish verbal morphology in children.

Nowadays, integration of various approaches in teaching grammar seems to be demanding to uncover the probable hidden agendas of grammar instruction and paving the way for the learners to acquire grammar interactively. Hence, the role of technology in education has sufficiently been recognized (Oz, 2014).

It is believed that using technology and computer-assisted language learning (CALL) methods (such as PCs, laptops, interactive smart board, overhead projector, internet, mobile, etc.) can facilitate learning and teaching process (Laws, 2006). Research has shown the significant effect of CALL, especially PPTs, on grammar learning (e.g. Nutta, 2013; Pirasteh, 2014; Tafazoli, 2013; Gulek& Demirtas, 2005; Oz, 2014; Oz& Demirezen& Pourfeiz, 2014; Liu, 2014), which suggests that awareness-raising activities should be carried out by teacher educators to encourage teachers to take advantage of technological devices in the class for teaching grammar and orchestrating the flow of communication while teaching the target form indirectly. As Ommen (2012) pointed out, learners have positive attitude toward using power point presentations (PPT) for learning grammatical points in their lessons. Similarly, according to Nutta’s (2013) remarks, computer-based instruction is more effective than the teacher directed grammar instruction as interview and questionnaire data highlighted that the learners were satisfied with the computer-based interaction. Gascoinage (2013) also carried out a quantitative research to figure out the role of incidental input enhancement in computerized L2 environments. The effect of keyboarding and using computer on the SLA French diacritic recall, which is an unintentional type of enhancement in comparison with intentional enhancement such as, bolding, underlining, was also taken into account. Quantitative analysis revealed that participants in the computerized group produced higher diacritic recall scores than control group. The role of gender performance in response to technology was recognized as well since Oz, Demirezen and Pourfeiz (2014) in their qualitative research demonstrated that there was no significant difference between male and female attitudes about FLL (foreign language learning) and CALL.

In a nutshell, FONF approach and CALL, which are theoretically framed in sociocultural theory (Vygotsky, 1978) and technology-based language learning (Corbeil, 2007), can be applied at the service of grammar instruction by creating interaction caused by teachers’ use of language tasks (Shahid &Nouri, 2005; Corbeil, 2007; Macis, 2011) while focusing on the target form. Therefore, the present study looks into the effect of applying form-focused instruction (textual enhancement) and technology (i.e. power point presentation, laptops, and overhead projector) to enhance input to make grammatical forms more salient, leading to providing a better teaching environment resulting in internalizing grammatical forms. Moreover, the study takes the male and female learners’ performance into account in order to investigate whether
there is any probable gender difference in the intake of active and passive tenses through using computer assisted grammar learning. Finally, the study probes the learners’ perceptions about teaching grammar through the application of technology.

**Research questions**
The study seeks answer to the following questions:
1. Does enhanced input through multimedia presentation have any effect on the learners’ intake of active and passive tense?
2. Is there any significant difference between male and female learners’ intake of active and passive voice through using computer-assisted grammar learning?
3. What are the students’ perceptions about learning grammar through technology?

**Method**

**Participants**
The participants of the study consisted of 60 students (32 male, 28 females) enrolled in Kish Air Language Institute in Chalus, Mazandaran, Iran. They were at intermediate level of studying English as a foreign language. They were between 17-35 years old. Students were divided into one experimental (n=30) and one control (n=30) groups.

**Instrumentation**
To meet the purpose of the study, the following instruments were applied:

*Oxford Placement Test (OPT).* OPT was administered before the treatment to select the homogenous sample. As to the reliability of the OPT, it was calculated as 0.9 (Geranpayeh, 2003), which shows a high and acceptable measure of internal consistency of the so-called test (Allen, 1992).

*Computer laboratory.* Computer laboratory was equipped with 25 computers, a video projector, and a whiteboard. The participants in the experimental group were trained by using the power point slides in a computer laboratory. Each session took about 90 minutes. The treatment process consisted of grammar points which were enhanced and presented through power point slides in short texts, which were used to practice the target forms (active and passive tense).

*Computer software.* It includes Windows 7, Microsoft office 2013, and Microsoft power point presentation, which were utilized for enhanced input with different formats of textual enhancement (e.g. bolding, underlying, and highlighting).

*The pre-test and the post-test.* They were constructed in a form of multiple choice questions for measuring learners’ knowledge of active and passive tense and they were administrated to both groups. Twenty-five multiple choice questions were chosen from intermediate level Grammar in Use (2009) book. The goal of the pre-test was to assess the participants’ background knowledge of the passive voice, while the post-test looked into the learners’ progress in grammar learning. The reliability of test items was checked through K-R21 formula. The reliability coefficients for the pre- and post tests were 0.70 and 0.75 respectively, which showed an acceptable measure of reliability as proved by Farhady, Jafarpour, and Birjandi (1994).
**Interview.** Interview was conducted with participants in the experimental group before and after the treatment sessions to see how their perceptions about learning grammar through technology have developed as a result of treatment sessions. The participants were asked some questions about grammar learning at the beginning of the treatment sessions. Their perceptions toward learning grammar through technology were also examined after the treatment to seek for the development of their perceptions. The control group was also taught in a classroom in Kish Air Institute by the help of teacher’s explanation, whiteboard, and textbooks (traditional method).

**Procedure**

This research was conducted within approximately two months including eight two-hour sessions of instruction for each group. After the OPT test, the number of 60 homogenous students with one standard deviation above and one standard deviation below the mean scores were selected to be the potential candidates of the study.

Firstly, all students were given the pre-test in the form of multiple choice items in order to check their background knowledge of active and passive tenses. At the same session, students were interviewed to probe their perceptions toward different methods of learning grammar, and importance of grammar in learning a language with respect to the emergence of technology in education. After the pre-test, students were randomly divided into the experimental and control groups. The target forms in treatment sessions for both groups were simple present, simple past, present continuous, past continuous tenses.

In the control group, the instructor explained the target forms through whiteboard and textbooks (traditionally). Learners listened to the instructor’s explanation, and then they completed the grammar exercises in their textbooks. The instructor monitored students and provided feedback to their errors.

In the experimental group, power point slides were provided according to target grammatical points (i.e. active and passive voice). In the first slide, learners were asked to work with their partners to answer some questions in order to examine their background knowledge of active tenses. After 10 minutes, they shared responses with their peers. In the second slide, students were given time to read a short story provided on the screen. The target verbs (active tenses) were bolded, italicized, capitalized, underlined, or highlighted in the story. Some comprehension questions were asked about the story. The next slide was another version of the first story in which the active verbs were changed to passive verbs. The same as the previous slide, the passive forms were enhanced through the above-mentioned textual enhancement types. The teacher, who was one of the researchers, asked some questions related to the story in order to help the learners practice new target forms indirectly. After providing the examples of active and passive tense through enhanced input and multimedia and actively involving the learners in classroom talk, the instructor finally explained the grammatical rules, and with some pictures, participants were required to make their own active and passive sentences. During eight sessions, different enhanced power point slides were given to the experimental group while the control group received unenhanced instructions. In the final session, the post-test was taken from two groups. Students were interviewed in groups for the second time in order to see whether their perceptions toward learning grammar via technology might have been changed.
**Data analysis**

To answer the first and second research questions of the study (i.e. 1. does enhanced input through multimedia presentation have any effect on learners’ intake of active and passive tense?; and 2. is there any significant difference between male and female learners’ intake of active and passive voice through using computer-assisted grammar learning?), an independent sample t-test was applied to measure the learners’ performance on the pre and post-test measures.

As to the third research question, which was the qualitative part of the study, data from interview were partially transcribed and analyzed based on grounded theory (Glaser & Strauss, 1967), which is a text analysis methodology and the purpose is to code the selected parts of the textual data.

**Results**

The study had three main purposes. The first purpose of the study was to find out whether enhanced input via power point presentation lead to intake of active and passive tenses in the experimental group. It aimed to figure out if the combination of focus on form approach and technological instrument (i.e. power point presentation, laptops, and overhead projector) can pave the way for the learners to grammar learning. Moreover verifying whether male learners were able to perform better than female ones in learning grammar through computer-assisted language learning in line with form-focused instruction was another purpose of the study. Last but not least, the third purpose was to probe students’ perceptions toward using technology as a powerful material in learning second language.

To meet the requirements of the study, quantitative analysis was applied which is in favor of measuring the learners’ performance on the occasions of the pre and post tests through SPSS software. To do so, an independent sample t-test was utilized to explore the effect of treatment sessions (TE and CALL instruction) on the learners’ intake of active and passive tenses (simple past, simple present, present continuous, and past continuous) as well as male and female performance in response to the above-mentioned treatment.

In addition to quantitative measure, qualitative part of the study involved the investigation of the learners’ perceptions about grammar learning through technology-based instruction, which is done by grounded theory methodology to categorize the learners’ perceptions.

**Investigation of the first research question**

The first research question of the study was ‘does enhanced input through multimedia presentation have any effect on learners’ intake of active and passive tense?’, in which the learners’ performance of the pre- and post-tests was evaluated.

To ensure the possibility of running an independent-samples t-test, the normality assumption had to be checked out. This was carried out through Kolmogrov-Smirnov test using SPSS software version 18. As Table 1 shows, the Kolmogrov-Smirnov results obtained for the experimental and control groups were .204 and .152 respectively, verifying the normality assumption.
Table 1. One-sample Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th></th>
<th>Experimental</th>
<th>Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>30</td>
<td>30</td>
</tr>
<tr>
<td>Normal Parameters&lt;sup&gt;a,b&lt;/sup&gt;</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-4.9333</td>
<td>-1.5667</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>3.50304</td>
<td>1.59056</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.195</td>
<td>.207</td>
</tr>
<tr>
<td>Positive</td>
<td>.195</td>
<td>.207</td>
</tr>
<tr>
<td>Negative</td>
<td>-.124</td>
<td>-.126</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>1.068</td>
<td>1.136</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.204</td>
<td>.152</td>
</tr>
</tbody>
</table>

<sup>a</sup> Test distribution is Normal.
<sup>b</sup> Calculated from data.

Now that the normality assumption was met, an independent-sample t-test was conducted to see if the treatment (enhanced input through multimedia presentation) made any difference in students’ scores. According to the group statistics in Table 2, the mean for the experimental group was higher than that of the control group.

Table 2. Descriptive statistics for the experimental and control groups

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exp.</td>
<td>30</td>
<td>-4.9333</td>
<td>3.50304</td>
<td>.63956</td>
</tr>
<tr>
<td>Cont</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control</td>
<td>30</td>
<td>-1.5667</td>
<td>1.59056</td>
<td>.29040</td>
</tr>
</tbody>
</table>

Whether or not the difference in the mean scores of the two groups is significant, Table 3 shows the result of the independent sample t-test.

Table 3. Independent sample t-test for experimental and control groups

<table>
<thead>
<tr>
<th></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>F</td>
<td>Sig.</td>
</tr>
<tr>
<td></td>
<td>Equal variances not assumed</td>
<td>-4.793</td>
</tr>
</tbody>
</table>

The homogeneity assumption is not met since the alpha level (.012) is less than 0.05. Therefore, the significant value in the second row should be considered. Accordingly there was a significant difference for the students’ scores in the experimental group (M = 4.93, SD = 3.5) and the students’ scores in the control group (M = 1.56, SD = 1.59) (t = 4.79, p = .000, Df = 40.47).
Meanwhile, the magnitude in the means was large (eta squared = .283). It can be concluded that the learners in the experimental group performed better than the control group participants in learning active and passive tenses through TE and CALL instruction.

**Investigation of the second research question**

The second research question of the study was ‘is there any significant difference between male and female learners’ intake of active and passive voice through using computer assisted grammar learning?’ in which male and female participants’ pre- and post-test scores were analyzed.

The same procedure as the one used for the analysis of the first research question was applied here. The normality assumption was checked using Kolmogrov-Smirnov test. As Table 4 shows, the Kolmogrov-Smirnov results obtained for the male and female students were .916 and .379 respectively, which shows that the normality assumption was met.

Table 4. One-sample Kolmogorov-Smirnov test

<table>
<thead>
<tr>
<th></th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td>N</td>
<td>14</td>
<td>16</td>
</tr>
<tr>
<td>Normal Parameters(^{a,b})</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>-5.0000</td>
<td>-4.8750</td>
</tr>
<tr>
<td>Std. Deviation</td>
<td>2.85549</td>
<td>4.08044</td>
</tr>
<tr>
<td>Most Extreme Differences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Absolute</td>
<td>.149</td>
<td>.228</td>
</tr>
<tr>
<td>Positive</td>
<td>.149</td>
<td>.228</td>
</tr>
<tr>
<td>Negative</td>
<td>-.149</td>
<td>-.159</td>
</tr>
<tr>
<td>Kolmogorov-Smirnov Z</td>
<td>.557</td>
<td>.910</td>
</tr>
<tr>
<td>Asymp. Sig. (2-tailed)</td>
<td>.916</td>
<td>.379</td>
</tr>
</tbody>
</table>

\(^a\) Test distribution is Normal.
\(^b\) Calculated from data.

An independent-sample t-test was conducted to see if the enhanced input through multimedia presentation affected male students more than female students or vice versa. According to the group statistics (Table 5), the mean for male students was higher than that of the female students.

Table 5. Descriptive Statistics for male and female groups

<table>
<thead>
<tr>
<th>GroupMF</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
<th>Std. Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>MFwhole</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>14</td>
<td>-5.0000</td>
<td>2.85549</td>
<td>.76316</td>
</tr>
<tr>
<td>female</td>
<td>16</td>
<td>-4.8750</td>
<td>4.08044</td>
<td>1.02011</td>
</tr>
</tbody>
</table>

For the significance of the mean differences, the results of the independent-sample t-test have to be looked into (Table 6). In this regard, the homogeneity assumption was met since the alpha level (.316) is more than 0.05. Therefore, the significant value in the first row should be accounted for.
Table 6. Independent sample t-test for male and female groups

<table>
<thead>
<tr>
<th></th>
<th>Levene's test for equality of variances</th>
<th>T-test for equality of means</th>
<th>95% Confidence interval of the difference</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
<td>Sig.</td>
<td>T</td>
</tr>
<tr>
<td>M/F whole</td>
<td>1.043</td>
<td>.316</td>
<td>-.096</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances not</td>
<td>-.098</td>
<td>26.802</td>
<td>.923</td>
</tr>
<tr>
<td>assumed</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

As the Table shows, there was no significant difference for the students’ scores in the male group (M = 5, SD = 2.85) and the students’ scores in the female group (M = 4.87, SD = 4.08) (t = .96, p = .924, Df = 28), highlighting that gender was not significantly affected by the application of TE and CALL.

Investigation of the third research question

As to the third research question aiming to probe the learners’ perceptions regarding the application of technology in learning grammar, grounded theory methodology was used aiming to code the data and extract the main categories.

To do so, the learners’ perceptions about teaching grammar through technology were looked into according to the categories emerged from the learners’ interview transcriptions. Concerning the research question of the study, the learners’ perceptions can be analyzed twice, i.e. before and after the treatment sessions. In fact, the learners’ transcriptions can be categorized as the learners’ perceptions about learning grammar through technology before and after the treatment, which are explained in the following.

The learners’ perceptions before the treatment. As to the participants’ interview transcripts, the main categories that almost the majority of the learners pointed out were 1) general understanding of the usefulness of technology in education; and 2) implicit preference to mechanical grammar learning. The above categories aimed to uncover the learners’ initial perceptions toward grammar learning through technology. In fact, the purpose was to see whether learners might be aware of the application of technology in teaching language skills in general as well as sub-skills (e.g. grammar and vocabulary) in particular, while the focus was mainly on grammar. Therefore, in the following, the above mentioned categories are taken into account by presenting the learners’ interview extracts to go for their perceptions in the beginning. As students’ native language is Persian, English translation of their interview extracts is provided.

1) General understanding of the usefulness of technology in education

Here, the purpose was to explore the learners’ familiarity with technology, particularity tools that can be applied to facilitate the language learning process. In fact, if the learners were, at the very least, conscious of the use of technology in educational setting, it seems it would help
teachers to comfortably play their role as teachers while at the same time benefiting from the most available technology tools to enhance learning outcome.

Regarding the learners’ interview transcripts, it was found that the majority of the learners (n=28) had a general understanding of applying technology in language learning. However, they seemed not to be aware of the main popular tools (e.g. laptops or overhead projector) applied in the language classroom. In other words, they might have heard that technology could be used at the service of teaching although they did not clearly mention that which specific tools could be applied for specific educational purposes. In the following, one of the learners’ extracts is explained:

**Extract 1.**

“…Technology is very effective in learning a language”. As technology has affected all parts of our lives, it seemed the learner had positive ideas about using technology in learning language, and he claimed that it must be effective although he might not know how. It seems that the learner had a general understanding of the application of technology in education. However, it is demanding that awareness regarding its use in the classroom in practice should be raised by teachers in order to interactively involve the learners with technology.

2) Preference to mechanical grammar learning

Based on the learners’ educational system during teaching process at high school, learners tended to gain grammar through drills and rules. It seemed that they weren’t familiar with teaching English and grammatical points indirectly via the integration of technology and focus on form approach (textual enhancement). As to the learners’ interviews, it was found that a large number of participants (n=27) were enthusiastic to mechanical grammar learning. In fact the learners were expected to learn the linguistic forms conventionally by attracting their attentions to grammatical entities. In order to highlight their preference to grammatical forms, an interview extract is provided.

**Extract 1.**

“Learning grammar is difficult but if I know the grammatical rules by my heart, it is easier for me to answer questions in exams. I need more repetition for learning a new grammatical point”.

Apparently, on the one hand, students desired to learn grammar through repetition and memorization of rules for being accepted in exams, while they were not aware of learning grammar in real communication context on the other. She thought that learning grammar was a disaster with which she had to struggle with complex rules.

**The learners’ perceptions after the treatment.** After accounting for the learners’ attitudes toward grammar learning through technology before the treatment, now it is of value to probe their beliefs after the treatment to see how power point presentation, laptops, and textual enhancement technique might result in the learners’ belief changes about learning grammar.

The results of the learners’ interview indicated that the main categories that most of the students mentioned after the treatment based on the transcription of interview were: 1) the application of power point presentation as a productive tool in learning grammar; 2) effective
grammar learning through interaction; and 3) the effect of CALL tools on internal and external learning factors.

These categories attempted to find out the learners’ perceptions toward learning through technology after eight sessions of treatment. The goal of the second interview was to see whether students’ perceptions toward learning grammar through power point presentation had changed. The above-mentioned categories are explained by clarifying the learners’ interview extracts.

1) The application of power point presentation as a productive tool in learning grammar

Using power point presentation for education is of great help. One the one hand, instructors can save their energy for crucial parts of lessons rather than wasting time on writing examples on the board. On the other hand, learners face more exciting class atmosphere for learning.

Regarding the application of power point presentation in the classroom, 90% of students (n=26) mentioned that it was the most effective strategy for learning and practicing grammatical rules they had ever tried. They also believed that visual aspects and colorful texts, which were available in this software, were the most interesting parts of treatment sessions. The extract below reveals the learners’ positive point of view toward PPTs.

Extract 1.
“I feel that the PPTs did help in my understanding of active and passive tenses because of the availability of various examples”.

Concerning the extract above, the learner believed that the classroom equipped with video projector provided the chance for receiving more examples, leading to better understanding of lessons. It helps teacher to gather more instances regarding the topic of lessons and save the time for more important parts of the lesson.

2) Effective grammar learning through interaction

Classroom interaction gives students a chance to be involved in learning process. Nearly 80% (n=23) of students believed positively that using PPTs gave the chance to practice their speaking skills. They argued that in this way teacher was like a student in the classroom and PPT was like a silent teacher. Therefore, they could talk to the teacher about the lessons in a friendly manner. They could also see a huge difference between leaning language through technology and what they had experienced during school time in which teacher was the only one who spoke in the class and students such as robots had to repeat his/her speech. Benefitting from various types of tasks by using PPTs made students more motivated for learning as shown in the extract below.

Extract 1.
“I could interact with my teacher and classmates freely”.

The extract belongs to the learner who was one of the silent students at the beginning of the term, but during the treatment sessions she showed active involvement with her classmates as well as the teacher.

3) The effect of CALL tools on internal and external learning factors

Some internal and external factors can be considered as advantages of applying the technology such as saving time, money, availability of technological tools and motivation. It could be argued that technological tools for learning a language can save the time. As mentioned above, it gives teachers a chance to handle exercise and tasks more efficiently.

As for the second argument, learners and principals don’t need to copy the large number of paper for preparing the tasks because of availability of software and tools. With the aid of video
projector, students can both do tasks and interact with their partners without spending money on buying textbooks.

The ease of access to the power point slides out of the classroom is another issue since most of learners have laptops, PCs, tablets at home in today’s community.

The students in the experimental group were more motivated to learn more grammatical points by using of power point slides, yet based on the first interview transcripts, they believed that learning grammar was difficult and time-consuming.

**Extract1.**

“I missed some of my teacher’s explanation in the class; I asked her to send me the PPTs slides and I learned it at home.”

The extract shows that transferring information through different means of technology such as Email, Viber, and other communication software can save the time and this highlights the availability of technological tools.

To sum up the qualitative analysis of the learners’ interview extracts, it was revealed that the participants of the study had a fairly simplistic view of benefitting from technology in grammar instruction since they did not consciously know how to use it in the language classroom or they might not experience its application. This issue was completely obvious because after the treatment sessions of using TE and CALL in the classroom to teach the target tenses, they were eager to using technology in the classroom as it brought about interaction and they could learn the grammar through speaking with their peers and the teacher. In fact, it is noteworthy that they had positive beliefs about technology-based instruction since it caused a satisfactory and interactive learning environment for grammar learning.

**Discussion**

The study was an attempt to look into the effect of enhanced input through multimedia (power point presentation) on intermediate male and female learners’ intake of active and passive tenses as well as gender differences. Moreover, it was aimed to explore the learners’ perceptions about technology-based grammar learning. The treatment sessions provided an opportunity for the participants to experience an interactive learning environment while implicitly being taught to focus on the target tenses (i.e. simple past and present and past and present continuous). In fact, power point slides and textual enhancement assisted the learners to benefit from real-life interaction, which according to Long (1991), can be fulfilled through focus on form approach as highlighted in the present study. Since the current research was framed in sociocultural theory, the application of various tools such as, teacher feedback, scaffolding, peer feedback, and teacher-learner interaction has appropriately been justified by which the learners could self-regulate their learning behaviors (Long, 1991) and interact with their peers. As to the findings of the study, it was found that the experimental group outperformed the control group in that textual enhancement and computer-assisted language learning paved the way for the learners to internalize the target forms. The instructor was considered as the mediator (Ommen, 2006) of the language use between the learners and their communication with power point slides. In this regard, TE and CALL were assumed to be mediational means (Corbell, 2007) through which the learners experienced grammar instruction in the context of meaningful interaction and learned the grammatical forms indirectly (Simord, 2006). As to the results, the use of multimedia for
grammar instruction has been found to be effective which is in alignment with research studies such as (Alodail, 2014; Corbell, 2007; Pirasteh, 2014; Oz, 2014; Liu, 2014) highlighting that the grammar is well-noticed (Schmidt, 1995). On the other hand, there are some research (Corbeil, 2007; Macis, 2011; Gascoinage, 2013) focusing on the less effectiveness of enhanced input instruction via technology on grammar learning demonstrating that there was no significant difference between the application of CALL and TE with traditional grammar instruction (textbooks and whiteboard), which is, to a large extent, in contrast with the present study.

The role of gender has also been recognized regarding grammar learning. It is usually believed that both male and female learners can have different reaction to the given treatment and this is naturally due to their psychological dimension and brain compatibility (Herring, 1994; Sierpe, 2000; Shehadeh, 1999). In today’s developing world, technology has attracted lots of attentions in educational contexts and this attraction has been treated differently by male or female language learners. For example, the present study indicated that there was no significant difference between male and female participants in response to grammar learning through technology although male participants were found to act slightly better than their female counterparts which is also transparent in other similar studies (Goodwin, 2006; Herring, 1994) which took the gender differences into account and concluded that different gender can have different reactions while experiencing a computerized learning environment.

Finally, the study revealed that the learners’ perceptions about grammar learning through technology had positively been changed since the majority of the participants had changed their simplistic perceptions after the treatment and believed that technology could pave the way for them to experience an interactive learning environment which resulted in improvement in learning the target tenses. As to the belief studies, and particularly changes in the learners’ belief systems, Kalaja and Barcelos (2006) highlighted the significance of interaction in changing the learners’ beliefs during the specific period of time. To take learners’ belief change into account from sociocultural point of view (as the framework of the study), Alanen (2006) argues that beliefs are meditational means and are subjected to change while learners are receiving a particular educational treatment which causes them to be autonomous language learners. The findings of the study showed that the learners were not able to take control of their learning before the treatment, while after the treatment (as pointed out in their interview extracts), while after the treatment they could independently produce the target forms in their speaking and doing the tasks without benefiting from teachers’ support. Sociocultural framework can justify the learners’ improvement by moving from other-regulation to self-regulation (Vygotsky, 1978) that is caused by the learners’ interaction with their peers as well as teachers to learn the grammar through the application of technology. In fact, change in the learners’ perceptions has been occurred by using CALL as a tool (Corbeil, 2007) to enhance the learners’ interactional processes in the classroom (Izumi, 2002), which is another justification of the sociocultural framework to look into the learners’ perceptions.

Conclusion
Framed in sociocultural and input enhancement perspectives, the present research was carried out to quantitatively investigate the effectiveness of CALL and TE on the intake of active and passive tenses and explore the gender performance to CALL. Finally the learners’ perceptions
were also examined qualitatively using grounded theory methodology. Quantitative measures demonstrated the significant effect of the treatment on the learners’ grammar learning. However, gender differences were found not to be as significant as expected since both male and female groups had almost the same response to the treatment sessions. In order to probe the learners’ perceptions, which was the qualitative part of the study, it was found that there was a positive change in the learners’ beliefs regarding the application of technology. It is noteworthy that the teacher-learner and learner-learner interactions created a positive atmosphere for the learners to experience a rather different learning environment, leading to the occurrence of change in their perceptions.
References


