Pre-emption with or without Pre-task Planning: A Probe into L2 Lexical Diversity

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Abstract
Lexical diversity as an aspect of linguistic complexity is the representation of active lexicon. The current study, setting a two-fold goal, attempted to see whether the preemptive focus on form (FonF) under either planned or unplanned conditions could contribute to increasing lexical diversity in written narratives and, second, to find whether there was a trade-off between the lexical diversity and accuracy. To this end, 32 beginner learners were selected following a Quick Oxford Placement Test and assigned into two groups to receive preemptive FonF under no-planning and pre-task planning conditions. The analysis of the results through a set of repeated measure ANOVAs and independent-samples t-tests revealed that the first group with unplanned condition outperformed the one with pre-task planning in lexical diversity. The results also revealed the trade-off between the lexical diversity and accuracy. That is, both lexical diversity and accuracy were significantly taken care of under unplanned preemptive condition whereas pre-task planning hindered attending to lexical diversity and, thus, both aspects simultaneously. It was concluded that providing learners with appropriate conditions through form-focused instruction can set the ground for activating their linguistic knowledge and letting them attend to different linguistic aspects during writing.

Keywords: Preemptive focus on form; pre-task planning; lexical diversity; accuracy; narrative writing.

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INTRODUCTION
The importance of learning vocabulary could be reflected in the quote by David Wilkins stating that “without grammar very little can be conveyed, without vocabulary nothing can be conveyed” (Thornbury, 2002, p. 13). However, the role of vocabulary, as one of the areas of language and language development has been subject to changes in different approaches. Although somewhat restricted in the audio-lingual approach, teaching vocabulary was, first, revived with the advent of the comprehension approach through exposing the learners to the input being a bit beyond learners’ current level (Larsen-Freeman & Anderson, 2011), and then, the Lexical Approach where vocabulary became the core component (Harmer, 2001). Nonetheless, learning vocabulary, according to the comprehension approach, was incidental rather than intentional (Long, 2000) through providing learners with extensive reading and listening as the input (Hunt & Beglar, 2002). However, Nation (2002) argued that this kind of learning is not guaranteed since native speakers of English may not benefit from the input, say reading, as a result of the frequency of repetition of vocabularies presented in the texts. Moreover, learners’ control over reading and their background knowledge of the text they are exposed to may, respectively, hinder and affect learning. Therefore, Nation argues that the best solution to overcome such limitations is a kind of instruction that directs the deliberate attention to language and, in this case, the lexical items to improve both implicit and explicit knowledge.

First proposed by Michael Long, form-focused instruction (FFI) is a kind of language-focused instruction. Long (1991) defined focus on form (FonF) as a kind of instruction which draws the learners’ overt attention towards incidentally occurring language while the meaning is emphasized. Drawing on the principles of the interaction hypothesis (Long, 1981, 1983, 1996, cited in Long & Robinson, 1998), FonF rests on the belief that language develops as a result of interaction among the learners and/or between learners and written texts, and finally, negotiation of meaning which leads to noticing, serving as an aid for intake to occur (Schmidt, 1990), as a result of learners’ becoming aware of the incongruities between the input and their output (Schmidt, 2001). As a learner-centered approach (Long, 2000), FonF draws the learners’ brief attention to language in the case of a problem in either production or comprehension (Long & Robinson, 1998).
With what mentioned above, it can be suggested that FonF can be applied to and used as an aid to learning different areas of language including vocabulary which is an important part of production and becomes even more important as learners become more linguistically proficient. The present study, therefore, sought to shed light on whether FonF instruction has any effects on L2 learners’ lexical diversity which signals the active lexicon and the way it is capitalized on by the learners (Malvern & Richards, 2002) in task performance.

LITERATURE REVIEW
Linguistic Complexity and Lexical Diversity
As Richards and Schmidt (2010) defined, complexity is a measure of language use featuring lengthy utterances and subordination and an indicator of language development. Ellis (2003) also defined complexity as the amount of elaboration and variation in the produced linguistic output. To Skehan (1996), complexity is a goal which learners, and especially those in an EFL context, try to achieve and the one that is a counterpart to restructuring which takes place in the interlanguage (IL) system lending itself to greater acquisition.

Lexical diversity, so-called lexical variety, is a measure of linguistic complexity (Ellis & Yuan, 2004; Yuan & Ellis, 2003), which signals the active lexicon and the way it is capitalized on by the learners (Malvern & Richards, 2002). Malvern et al. (2004) also defined lexical diversity as “the range of vocabulary and avoidance of repetition” (p. 3) and argued that a high lexical diversity echoes the extent to which learners are capable of effectively applying the active lexicon.

Several researchers have examined the lexical diversity in the literature. For example, Dewaele and Pavlenko (2003) have distinguished a number of factors including personality, culture, language, and situation that would affect the variation in the use of lexical items. They also found that the language produced by the females enjoyed greater variety in terms of lexical items than the males and that the language produced by the foreign language (FL) speakers was less lexically-diverse due to the lower proficiency level and finite lexical knowledge making them employ the lexicon repetitively. Johansson (2008) suggests the age as another factor that affects the diversity in the words used since, in his research, the older learners produced more
lexically-varied vocabularies. This was particularly clear in the narrative task performed orally by 17-year-old participants whose familiarity with the task brought a higher lexical diversity forward.

**FonF Instruction**

According to Ellis (2001, 2016) and Ellis, Basturkmen and Loewen (2002), FonF can be either planned and non-interactive, in which one single linguistic item is selected by the teacher beforehand and treated repeatedly, or incidental and interactive (Ellis, 2016), during which several linguistic items are simultaneously treated. Accordingly, interactive (incidental) FonF takes two forms: reactive, i.e. treating errors through providing corrective feedback (CF) and negotiation, or preemptive. Preemptive FonF has been defined as “the attempts by the students or the teacher to make a particular form the topic of the conversation even though no error or perceived error in the use of that form has occurred” (Ellis et al., 2002, p. 427) which is further sub-classified into two types: learner-initiated as a result of an existing gap in learners’ interlanguage (IL) system, and therefore, asking for assistance (Williams, 2005), or teacher-initiated as the teachers’ predicting the probable gap in learners’ IL system, and making decisions to address it. Offering psychological support and creating a positive environment, the pre-emption facilitates task performance through decreasing the task difficulty, learners’ frustration, and frequency of error occurrence (Heift, 2013). Moreover, as an appropriate technique for presenting the language explicitly (Nassajji, 2010) and showing both the correct and incorrect linguistic form (Pawlak, 2013), it acts as a mediating tool and also, kind of, linguistic and cognitive support which eases the task performance (Van Avermaet, Colpin, Van Gorp, Bogaert, & Van den Branden, 2006).

The studies exploring the outcomes of preemptive FonF are quite few in number although the other types of FonF activities have been pondered quite a lot in the literature. Ellis, Basturkmen and Loewen (2001), as an example, observing the form-focused activities in classroom contexts found that preemptive FonF was the technique utilized by the learners who were not proficient enough and that grammar and lexicon were the linguistic aspects that were mostly attended to through preemptive FonF. Moreover, they counted a number of outcomes including promoted noticing, monitoring, uptake, and acquisition that could be brought about through the
explicitness of preemptive FonF.

Alcón (2007) similarly suggested that grammar and vocabulary were two linguistic items attended to most through FonF. Analysis of the FonF episodes involving vocabulary showed that the teacher's attempt to draw learners' attention to lexical items was helpful in increasing noticing and, therefore, producing more accurate written performance. Alcón, therefore, concluded that drawing the learners’ incidental attention to language can enhance their lexical knowledge.

Nassaji (2010) also observed that preemptive FonF was initiated more frequently by the beginner learners than the advanced counterparts since they were in more need of the teachers’ support owing to the limited linguistic knowledge although all learners regardless of their proficiency levels took the advantage.

**Planning**
Planning, as defined, is a problem-solving activity which helps the learners make decisions on the language which is required (Ellis, 2005) and one of the prerequisites in the production process since, as Hulstijn and Hulstijn (1984) put it, planning starts after the message is conceptualized and it is through planning that the existing knowledge is activated and retrieved from the memory and, finally, the message is articulated. This is the main argument evident in Swain’s output hypothesis (1985, 1995, cited in Ellis, 2005) suggesting that production requires syntactic processing and paying attention to language features. Planning, as Ellis et al. (2002) argued, can be an aid to FonF and the pre-task planning, in particular, can even act as a kind of FonF that could occur as an outside-task activity (Ellis, 2016).

Studies on planning, generally, reported on its benefits in improving different productive aspects including accuracy, fluency, and complexity. Crookes (1989) studying the IL produced following the planning time found a higher lexical variety- although syntactic variety was not great- and higher language complexity. However, the groups were equally accurate. On the other hand, Skehan and Foster (1997) found positive results for higher accuracy and fluency since, without planning time, the learners would have to simultaneously focus on both form and content which they find challenging. Higher syntactic complexity was also observed under planned condition. They, surprisingly, found that the rate of accuracy declined as the
production became more complex.

Utilizing narrative tasks, Piri, Barati and Ketabi (2012) examined the effects of pre-task planning and on-line planning on fluency, accuracy, and complexity in written production. According to the study results, pre-task planning was seen to improve fluent but not complex and accurate written production. However, Seyyedi et al. (2013) argued that during planning, the content and meaning were focused on, and hence, more complexity could be exhibited in productive performance.

Looking at the results of the above-mentioned studies, it can be realized that there is no consensus on the extent to which planning affects different aspects of production including accuracy, fluency, and complexity—what Yuan and Ellis (2003) called the “trade-off effects” (p. 3) which refers to precedence of some linguistic aspects over the others due to the differences in abilities to process the language. The trade-off has been shown to be different between and among the production aspects in different studies.

In sum, it can be seen that the role of planning time in fostering different aspects of performance is not crystal-clear yet because of the inconsistencies that exist in the controversial results reported in different studies. On the other hand, the findings on the trade-offs between the different aspects of performance are not in consistency and, therefore, raise the need for more studies.

PURPOSE OF THE STUDY

The process of writing is known to be complicated because it is both cognitively- and linguistically-demanding, for language learners and especially those with lower proficiency levels, as it requires the knowledge of the topic and audience and includes planning, organizing, goal-setting, editing, etc., and, finally, the familiarity with the type of tasks (Bereiter & Scardamalia, 1987, cited in Weigle, 2002; Flower & Heyes, 1980).

Vocabulary and how to use it are of imperative importance in the process of production, particularly in writing, and it cannot be ignored that the lexical knowledge should increase as the proficiency level increases (Read, 2000). A good writing, as Read (2000) puts it, is associated with using various lexical items, rather than repetitively-used ones. Such a variety is a matter of proficiency level and gaining more lexical knowledge, applying the low-frequent lexical items, rather than the high-frequent ones,
using more content than function words, and finally, a piece of writing that contains no or fewer errors in terms of vocabulary use. Among all, due to being decontextualized, writing in a language requires a highly varied language, i.e. lexical diversity, as an aspect of vocabulary knowledge.

Taking into account the aforementioned literature which is replete with contrasting findings regarding the effects of preemptive FonF and pre-task planning on the complexity of language, the present study, drawing on the model proposed by Ellis (2016), first, attempted to study whether an outside-task FonF, namely pre-task planning, could act as an aid to teacher-initiated preemptive FonF as a within-task activity. It is assumed that such an instructional procedure can improve L2 learners’ lexical diversity in writing narratives since narratives are among the challenging tasks that impose demands on the learners due to the volume of information they contain (Alavi, Borzabadi Farahani & Muhammadi Savadroodbari, 2014). The burden is even more on the low-proficient learners whose lexicon is limited. Second, the study explored the trade-off between the lexical diversity and accuracy in written task performance because the need for more studies is felt since it was previously found by Yuan and Ellis (2003) in oral, but not in written, narratives. Hence, the following questions were the main foci of this study:

1. Does teacher-initiated preemptive FonF significantly improve beginner L2 learners’ lexical diversity in written narrative task performance?
2. Does pre-task planning aid teacher-initiated preemptive FonF in improving beginner L2 learners’ lexical diversity in written narrative task performance?
3. Is there any significant difference between beginner L2 learners provided with teacher-initiated preemptive FonF under no-planning vs. pre-task planning conditions in terms of lexical diversity in written narrative task performance?
4. Is there a trade-off between the lexical diversity and accuracy in the beginner L2 learners’ written narratives?

METHOD
Participants
The participants were 32 learners including both male and female recruited
from among 65 learners studying English in Pardis language school, a private language school in Mazandaran, Iran based on the results of a Quick Oxford Placement Test (QOPT) administered at the outset of the study. That is, those whose scores fell within ±1 standard deviation were selected. They were between 14 and 16 years of age and beginner in language proficiency, and had already passed some courses at their schools and the English school. They were assigned into two treatment conditions: teacher-initiated preemptive FonF under no-planning condition (Preemptive-only group) (n = 17) and teacher-initiated preemptive FonF under pre-task planning condition (PTP-preemptive group) (n = 15).

**Instrumentation**
At the outset, a QOPT, version 2.00, was utilized as the proficiency test for selecting the participants. The learners answered 60 multiple-choice items on vocabulary and grammar which measured the general linguistic knowledge of the learners during 30 minutes suggested by the very test. As the instructional materials, 10 narrative tasks each including a set of cartoon strips narrating a story were selected and used during the treatment sessions. They were adapted from different sources such as Hill (1980), Thompson (2010), and Simmons (2010) and care was taken to choose the ones which suited the participants’ proficiency level. Similar tasks and cartoon strips adapted from Saslow and Ascher (2011) and Thompson (2010) were chosen for the pretest and both immediate and delayed posttests and pilot-tested prior to being implemented in the main study. The Cronbach’s α value obtained as the reliability index of the tasks equaled .73 which indicated a desirable outcome suggesting that the tasks were similar in terms of difficulty.

**Data Collection Procedure**
The participants were assigned into two treatment conditions. Both groups were provided with a narrative task, each session, including cartoon strips based on which stories could be narrated.

The learners in both groups received similar preemptive FonF during 10 sessions lasting for approximately 30 minutes. To implement the pre-emption, a list of vocabularies required for completing the tasks was prepared by the researchers prior to starting every treatment session. In
order to select the appropriate lexical items, the occurrence of the vocabularies was examined during pilot-testing the instructional tasks conducted before starting the main study. Finally, an average of 10 words assumed to be unknown or forgotten by the learners were selected each session and for each task, by the researchers, to be pre-empted. Before the learners started working on the tasks, they were provided with the list of vocabularies in a decontextualized form and asked to use them while completing the tasks and ask questions about their meaning from either the teacher or their partners. Both groups were provided with the same tasks and vocabularies and were, subsequently, given 10 minutes during which they, working in dyads, narrated the stories to their partners and, finally, told their narratives to the whole class. This was done to foster the interaction between and among the learners and let the FonF instruction be integrated into classroom context and conversation (Long & Robinson, 1998). With respect to the second aim of the study which was examining the trade-off effect between the lexical diversity and accuracy, the grammatical errors of neither of the groups were ignored but treated throughout the treatment sessions. The groups were, however, different in that after the pre-emption and before practicing in dyads, the PTP-preemptive group was required to pre-plan for the tasks during 10 minutes.

To collect the data, a pretest was administered to find out if the participants in both groups possessed similar abilities in producing diverse lexical items. Following the last treatment session, both groups were tested immediately to see if the instructional conditions were beneficial and could make changes in their abilities to produce lexically-diverse items, and one more time, within a two-week span to see whether the effects, if any, were retained.

**Data Analysis**

To achieve the purpose of the study, the participants’ narratives produced on the pretest, immediate posttest, and delayed posttest were scored objectively and through mere counting the number of words based on the measure recommended by Malvern and Richards (2002), that is, Mean Segmental Type-Token Ratio (MSTTR). Since the length of the learners’ written narratives was less than or, at most, equal to 100 words, the narratives were divided into segments of 30 words. The number of different
words was, then, counted and divided by the total number of words in the segments. The mean scores of the segments were, finally, added and divided by the total number of segments produced by each participant. The learners’ written narratives were also scored for the accuracy based on the number of error-free clauses and correct word order following Ellis and Yuan (2004) and Skehan and Foster (1997), respectively. Approximately one-third of the collected data from each group was chosen randomly and assigned to two more English teachers to be rated. The Cronbach’s α values obtained as the inter-rater reliability for the pretest, immediate, and delayed posttests were .97, .99 and .98, respectively. The obtained scores were, finally, analyzed through running repeated measure (RM) ANOVA and independent-samples t-test. Shapiro-Wilk goodness-of-fit test was also conducted due to the small sample size to examine the normal distribution of the scores. The confidence interval (CI) was set at .95.

RESULTS
Conducted at the very beginning, Shapiro-Wilk goodness-of-fit test showed that the p-values were not significant, i.e. .074, .072 and .057 for the preemptive only and .617, .084 and .620 for the PTP-preemptive groups on the pretest, immediate and delayed posttests, respectively, and indicated a normal pattern of distribution for the lexical diversity data.

Pretest Results
First and foremost, it is important to look at the performance on the pretest. The results of Table 1 show that those receiving only preemptive FonF have a lower mean score (M = .59, SD = .05) than the ones receiving preemptive FonF with extra planning time (M = .60, SD = .06). However, the mean scores are not notably different. Nonetheless, the results of independent-samples t-test were checked to find the statistical significance of the difference.

<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>Preemptive only</td>
<td>17</td>
<td>.5953</td>
<td>.0541</td>
<td>.0131</td>
</tr>
</tbody>
</table>
Looking at Table 2 below and examining the Levene’s test, one can see a non-significant p-value (p = .959) indicating that the assumption accounting for the equality of variances is not violated. Accordingly, the t-test table showed a non-significant statistical difference between the two sets of scores obtained from the groups prior to the instruction (p = .817, df = 30, t = -.23). The magnitude of the difference in mean was -.00 with CI ranging from -.04 to .03.

**Table 2: Independent-samples t-test results for the groups’ performance on the pretest**

<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>Equal variances assumed</td>
<td>.003</td>
<td>.959</td>
<td>-.233</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>-.232</td>
<td>28.470</td>
<td>.818</td>
</tr>
</tbody>
</table>

It could, thus, be inferred that the groups were not different regarding lexical diversity prior to conducting the research.

**Lexical Diversity**

The first three research questions aimed at exploring the effectiveness of preemptive FonF under planned and unplanned conditions. The results are presented below.

**Table 3: Descriptive statistics for the groups’ performance**

<table>
<thead>
<tr>
<th>N Statistic</th>
<th>Mean Statistic</th>
<th>Std. Deviation Statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>PTP Preemptive</td>
<td>15</td>
<td>.6000</td>
</tr>
</tbody>
</table>
The descriptive statistics (see Table 3) showed that the lexical diversity in the preemptive-only group’s written narratives increased from the pretest ($M = .59, SD = .05$) to the immediate posttest ($M = .67, SD = .06$) and also on the delayed posttest ($M = .74, SD = .07$). The PTP-preemptive group also showed an increase in lexical diversity from the pretest ($M = .60, SD = .06$) to the immediate posttest ($M = .65, SD = .09$) and on the delayed posttest ($M = .70, SD = .06$). The results, therefore, denote that pre-emption under either planned or unplanned conditions was helpful and that the learners were able to retain their abilities gained during the treatment sessions, and therefore, showcased a better performance.

<table>
<thead>
<tr>
<th>Source</th>
<th>Type II Sum of Squares</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta Squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.261</td>
</tr>
<tr>
<td></td>
<td>Sphericity Assumed</td>
<td></td>
<td>.131</td>
<td>27.816</td>
<td>.000</td>
<td>.481</td>
</tr>
<tr>
<td>Time * Group</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.009</td>
</tr>
<tr>
<td></td>
<td>Sphericity Assumed</td>
<td></td>
<td>.004</td>
<td>.952</td>
<td>.392</td>
<td>.031</td>
</tr>
<tr>
<td>Error (Time)</td>
<td></td>
<td></td>
<td>.005</td>
<td></td>
<td></td>
<td>.282</td>
</tr>
<tr>
<td></td>
<td>Sphericity Assumed</td>
<td></td>
<td>.005</td>
<td></td>
<td></td>
<td>.60</td>
</tr>
</tbody>
</table>

The analysis, which continued through running RM-ANOVA, shows a significant effect for time and denotes that the lexical diversity changed over
time ($F_{2,60} = 27.81, p = .000$, Partial Eta Squared = .48). The non-significant interaction effect, however, denotes similar change in both groups ($F_{2,60} = .95, p = .392$, Partial Eta Squared = .03) (see Table 4).

Table 5: Multiple comparisons for the preemptive-only group’s performance

<table>
<thead>
<tr>
<th>(I) Time</th>
<th>(J) Time</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>b 95% Confidence Interval for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>-.078*</td>
<td>.022</td>
<td>.008</td>
<td>-137 to -019</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>-.150*</td>
<td>.022</td>
<td>.000</td>
<td>-208 to -092</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.078*</td>
<td>.022</td>
<td>.008</td>
<td>019 to 137</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-.072*</td>
<td>.024</td>
<td>.028</td>
<td>-137 to -007</td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni.

Multiple comparisons using the Bonferroni adjustment show a significant difference between the pretest and immediate posttest ($p = .008, CI = -.13 to -.01$) and immediate to the delayed posttest ($p = .028, CI = -.13 to -.00$) of the preemptive-only group. The results, therefore, indicated that teacher’s pre-emption was conducive to shaping up higher ability, and producing more lexically-varied written narratives (see Table 5).

Table 6: Multiple comparisons for the PTP-preemptive group’s performance

<table>
<thead>
<tr>
<th>(I) Time</th>
<th>(J) Time</th>
<th>Mean Difference (I-J)</th>
<th>Std. Error</th>
<th>Sig.</th>
<th>b 95% Confidence Interval for Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>-.053</td>
<td>.030</td>
<td>.316</td>
<td>-135 to .030</td>
</tr>
<tr>
<td>1</td>
<td>3</td>
<td>-.103*</td>
<td>.020</td>
<td>.001</td>
<td>-158 to -.047</td>
</tr>
<tr>
<td>2</td>
<td>1</td>
<td>.053</td>
<td>.030</td>
<td>.316</td>
<td>-.030 to .135</td>
</tr>
<tr>
<td>2</td>
<td>3</td>
<td>-.050</td>
<td>.026</td>
<td>.226</td>
<td>-.121 to .021</td>
</tr>
</tbody>
</table>

*. The mean difference is significant at the .05 level.
b. Adjustment for multiple comparisons: Bonferroni.

Similar multiple comparisons using the Bonferroni adjustment,
however, show a non-significant difference between the pretest and the immediate posttest ($p = .316, \text{CI} = -.13 \text{ to } .03$) and immediate to the delayed posttest ($p = .226, \text{CI} = -.12 \text{ to } .02$) of the PTP-preemptive group. Thus, it is shown that, although bringing higher scores, the teacher’s pre-emption under pre-task planning condition could not instigate enhanced ability in written narratives that enjoyed diverse lexical items (see Table 6). To make the results more clear-cut, independent-samples t-test was run on the scores of both immediate and delayed posttests.

**Table 7: Independent-samples t-test for the groups’ performance on the immediate posttest**

<table>
<thead>
<tr>
<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>F</td>
<td>Sig.</td>
<td>t</td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>1.194</td>
<td>.283</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td>.683</td>
<td>24.754</td>
</tr>
</tbody>
</table>

Looking at the table of independent-samples t-test and examining the Levene’s test, a non-significant p-value can be seen ($p = .283$) suggesting that the assumption of equal variances is not violated. The independent-samples t-test results showed a non-significant difference between the two sets of scores obtained immediately following the instruction ($p = .490, \text{df} = 30, t = .69$). The magnitude of the mean difference (mean difference = .02, 95% CI = -.04 to .08) was negligible (Cohen’s d = .24) (see table 7).

**Table 8: Independent-samples t-test for the groups’ performance on the delayed posttest**
Looking at the table of independent-samples t-test and examining the Levene’s test, the non-significant *p*-value (*p* = .733) indicated the equality of variances. The t-test results, accordingly, showed a non-significant *p*-value (*p* = .089, df = 30, *t* = 1.75) for the delayed posttest scores. The magnitude of the mean difference (mean difference = .04, 95% CI = -.00 to .09) was medium (Cohen’s *d* = .62) (see Table 8).

The results, therefore, reveal that although the learners in the preemptive-only group achieved better results after the end of the treatment sessions, they were not statistically different from those who were additionally provided with pre-task planning time. The same results were true for the delayed posttest as well.

### The Trade-off between Lexical Diversity and Accuracy

For the last research question, the accuracy scores, in each group, were examined so that the trade-off, if any, between the accuracy and lexical diversity could be found. All the *p*-values obtained from Shapiro-Wilk goodness-of-fit test were non-significant and equaled .074, .121 and .064 for the pretest, immediate and delayed posttests of the preemptive-only group and .091, .240 and .441 for the pretest, immediate and delayed posttests of the PTP-preemptive group, respectively. Thus, the accuracy data enjoyed a normal pattern of distribution.
Table 9: Descriptive statistics for the groups’ scores on lexical diversity and accuracy

<table>
<thead>
<tr>
<th>Group</th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Lexical Diversity</td>
<td>Accuracy</td>
</tr>
<tr>
<td>Preemptive only</td>
<td>17</td>
<td>.5953</td>
<td>.1124</td>
</tr>
<tr>
<td>Pretest</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Immediate Posttest</td>
<td>17</td>
<td>.6735</td>
<td>.3529</td>
</tr>
<tr>
<td>Delayed Posttest</td>
<td>17</td>
<td>.7453</td>
<td>.4365</td>
</tr>
<tr>
<td>Immediate Posttest</td>
<td>15</td>
<td>.6000</td>
<td>.1273</td>
</tr>
<tr>
<td>Delayed Posttest</td>
<td>15</td>
<td>.6527</td>
<td>.4440</td>
</tr>
<tr>
<td>PTP Preemptive</td>
<td>15</td>
<td>.7027</td>
<td>.5327</td>
</tr>
</tbody>
</table>

The results of the descriptive statistics (see Table 9) show an increase in accuracy in the preemptive-only group’s written narratives from the pretest (M = .11, SD = .08) to the immediate posttest (M = .35, SD = .22) and on the delayed posttest (M = .43, SD = .25). The descriptive statistics also show an increase in accuracy in the PTP-preemptive group’s written narratives from the pretest (M = .12, SD = .11) to the immediate posttest (M = .44, SD = .18) and to the delayed posttest (M = .53, SD = .13).

Table 10: The p-values for the group’s scores on lexical diversity and accuracy

<table>
<thead>
<tr>
<th>Groups</th>
<th>Lexical Diversity</th>
<th>Accuracy</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>Sig. (2-tailed)</td>
</tr>
<tr>
<td>Preemptive only Pretest-Immediate Posttest</td>
<td>.008</td>
<td>.001</td>
</tr>
<tr>
<td>Immediate Posttest-Delayed Posttest</td>
<td>.028</td>
<td>.409</td>
</tr>
<tr>
<td>PTP Preemptive Pretest- Immediate Posttest</td>
<td>.316</td>
<td>.000</td>
</tr>
<tr>
<td>Immediate Posttest-Delayed Posttest</td>
<td>.226</td>
<td>.231</td>
</tr>
</tbody>
</table>

The analysis of the RM-ANOVA results obtained from the learners’ accuracy scores in the preemptive-only group showed a statistically significant difference between the performance of the learners on the pretest and the immediate posttest (p = .001) while a non-significant one between the immediate and delayed posttests (p = .409). The analysis of the RM-ANOVA results obtained from the learners’ accuracy scores of the PTP-preemptive group also showed a statistically significant difference between the pretest and the immediate posttest (p = .000) while a non-significant
difference between the immediate and delayed posttests \((p = .231)\) (see Table 10). Comparing the groups’ mean scores and p-values in lexical diversity and accuracy, it is noticeably clear that that the learners who were solely provided with preemptive FonF performed well in producing both accurate and lexically-diverse language both of which were statistically significant and that, the effect was even more evident in the latter, i.e. lexical diversity, in both short and long term. On the other hand, looking at the mean scores and p-values of the second group, which had the pre-emption accompanied with pre-task planning time, it can be seen that although the learners’ narratives enjoyed a high level of accuracy which was statistically significant, they did not contain adequately varied lexical items since the results were not statistically significant.

**DISCUSSION**

The first research question dealt with the extent to which teacher-initiated preemptive FonF contributed to lexically-diverse narratives. The results were in favor of the instruction. In other words, it could statistically be observed that the beginner learners’ lexical knowledge was successfully activated by virtue of pre-empting vocabulary and it, *per se*, induced higher lexical diversity on both immediate and delayed posttests. The positive results could be justified by the type of information conveyed through preemptive FonF (Nassaji, 2010) which could trigger noticing and, as a result, the beginner learners could exploit their activated knowledge and produce narratives which featured variety in the use of vocabulary. The outcomes also run parallel to Alcón (2007) suggesting that an upswing is viable through directing the L2 learners’ incidental attention towards language and Ellis et al. (2001) arguing that the preemptive FonF instigated promoted noticing, monitoring, uptake, and acquisition.

The second research question looked into whether an outside-task FonF, namely pre-task planning, could assist the teacher-initiated preemptive FonF- a kind of interactive within-task FonF (Ellis, 2016). The outcomes suggested that, indeed, it did not because, although a little increase was evident in the learners’ mean scores obtained on both the immediate and delayed posttest, the increase, surprisingly, was not statistically significant. Running against Crooks (1989), it could be discussed that planning cannot boost the lexical variety in the written
language. On the other hand, Yuan and Ellis (2003) observed higher lexical diversity in oral narratives as an aftereffect of the pre-task planning. It can, thus, be seen that the results of the present study might not run parallel in written narratives. It can, however, be consistent with Ellis and Yuan (2004) since, looking at the results, one can see that although enjoying greater lexical diversity than the pretest, the learners’ written narratives did not improve statistically significantly. The findings also run counter to Sangarun (2005) in that pre-task planning, seemingly, could not improve the lexical variety as an aspect of linguistic complexity.

The findings of the third research question, comparing the two treatment conditions, surprisingly revealed no statistically significant difference between the groups. However, it is quite evident that the preemptive-only group outperformed the PTP-preemptive group because of obtaining an extremely higher mean score and the statistically significant progress mentioned above due to the explicitness of the pre-emption (Nassaji, 2010). However, the non-significant difference between the two groups might be justified by the mean score of the second group that revealed a little increase which, as it seems, might emanate from being provided with the pre-emption on vocabulary. The findings, therefore, run counter to Panahzade and Gholami (2014) arguing that the pre-task planning along with the preemptive FonF can increase the lexical knowledge.

The last research question examined whether there was a trade-off between the lexical diversity and accuracy. The overall results proved the superiority of preemptive FonF without pre-task planning over that with pre-task planning in both lexical diversity and accuracy while preemptive FonF with pre-task planning was only superior in terms of accuracy because, as the results signified, the narratives of the PTP-preemptive group were even more accurate than the preemptive-only group. Therefore, the trade-off can be seen between the lexical diversity and accuracy because the planning time, seemingly, involved the learners with grammar so that they gained higher scores in accuracy while not paying adequate attention to the lexicon and, therefore, produced less lexically-diverse narratives. On the other hand, the other group with only preemptive FonF paid similar and simultaneous attention to both grammar and vocabulary which resulted in accuracy and lexical diversity, respectively, noting the fact that the accuracy score was statistically significant, although lower. The results, therefore, can
be in line with Yuan and Ellis (2003) who found a trade-off between the lexical diversity and accuracy following pre-task planning. However, unlike the studies finding a trade-off in oral production, the trade-off, in the present study, was found in written narratives. The results are somewhat consistent with Skehan and Foster (1997), too, in that the attention to one linguistic aspect might distract the attention to other aspects and that planning time made the learners focus on developing accuracy.

Summing up, it could be inferred that preemptive FonF presented solely could enhance the lexical diversity in both short and long run. However, when presented with pre-task planning time, it can seemingly distract learners from attending to the vocabulary and instead direct them towards such other aspects as accuracy. It can, therefore, be discussed that, although not in case of lexical diversity, an outside-task FonF, namely pre-task planning, could act as an aid to teacher-initiated preemptive FonF which is considered a within-task FonF to improve some aspects of production such as accuracy, as observed in the present study.

CONCLUSION AND IMPLICATIONS
The present study looked into whether the pre-emption of vocabulary could make changes in beginner L2 learners’ narrative writing in terms of lexical diversity and whether pre-task planning as an outside-task FonF could assist and facilitate this process so that higher lexical diversity is secured. Moreover, it looked into the trade-off between two aspects of production, that is, lexical diversity and accuracy. The overall results suggested that the preemptive FonF, by itself, was successful in activating the lexical knowledge and incrementing lexical diversity. Pre-task planning, however, did not assist the lexical diversity since the pre-task planning was found to make the learners pay more attention to grammar and accuracy which could explain the dual trade-off.

One of the implications of the present study is the fact that the learners, especially the low-proficient ones, require explicit information for developing the skills and improving the language they are supposed to produce. Such a development can be achieved through paying careful and meticulous attention to language and the linguistic tools which results in noticing (Schmidt, 1999) and further, through the very teachers and their interaction with the learners which can, indeed, be fostered through pre-
empting language. Another implication concerns the balance which should be maintained between and among different aspects of production including accuracy, fluency, and complexity. It, therefore, requires the teachers’ attempt in instructional contexts to impede such imbalance, i.e. the trade-off effect (Yuan & Ellis, 2003), through making right decisions when lesson-planning and choosing various techniques and tools so that all aspects are simultaneously taken into account and that one aspect is not sacrificed for achieving the others.

However, the limitations of the present study including the number of the participants which was rather little in size and their proficiency level which was beginner have to be considered in future research. Thus, to assure the generalizability of the findings, more attempts should be made, in the future, to replicate the methodology of the present study with a larger sample size and higher levels of proficiency. Moreover, the trade-off effect was only examined between two aspects of production including lexical diversity, as only one measure of complexity, and accuracy which cannot be generalized to the other aspects. Therefore, more studies are required to be conducted to examine the trade-off between and among the other aspects including the fluency and other measures of complexity such as syntactic complexity and variety.

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