The Effect of Planning time in Different Contexts of Elicitation on EFL Writer's Performance

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Abstract

Concerning the limited capacity of working memory and drawing on Limited Attentional Capacity Model and Cognition Hypothesis, this paper examined the effect of planning time on Iranian EFL writers' performance and reported on the mediating role of educational contexts on the way of the planning process. Forty-one Iranian EFL learners in two contexts (university and institute) were asked to write in an argumentative genre under different planning time conditions (pre-task planning and online planning). The results revealed that the pre-task planning, by reducing the cognitive loads on working memory, helped the learners to have better performance in terms of fluency. However, it did not exert statistically significant differences in the complexity and accuracy of the written productions. Given the context of elicitation, the results indicated a significant effect on the participants' written performance regarding complexity and accuracy. Moreover, a significant interaction effect was found between planning time and context. The findings shed more light on the understanding of the planning process as a main cognitive component of the writing process in second/foreign language learning. Furthermore, the results of the study have pedagogical implications for utilizing the planning process to improve the writing performance of language learners.

Keywords: Planning Time; Context; Writing Performance
1. Introduction

Conscious attention or 'noticing' is regarded as an essential part of language learning (Schmidt, 1994). Due to limited attentional resources in working memory (Robinson, 2001, 2005; Yuan & Ellis, 2003), human being has to make decisions for allocating attentional resources because giving a priority to one system or subject to devote more attention is likely at expense of another (Skehan & Foster, 2001). Planning through the proper devoting of attentional resources and arrangement of cognitive processes has been proposed as one solution to this dilemma (Yuan, 2001). The planning process, by reducing cognitive demands on working memory, helps language learners to demonstrate better performance during completion of a given task (Foster & Skehan, 1996, 1999; Robinson, 2001, 2005; Yuan & Ellis, 2003).

Ellis (2005) expounded that planning process is an indispensable part of oral and written language performances, process that all speakers and writers go through in their language production, even though they might seem spontaneous and automatic. He classified planning, based on its temporal order, into two principal types including pre-task planning and within-task (online) planning (Ellis, 2005). In the former, planning occurs before performing the task while the latter takes place simultaneously with performing the task.

Most of the investigations regarding planning have been undertaken in task-based instruction contexts and the research findings on planning conditions can be effectively employed in task-based instruction. Task-based instruction provides an opportunity for instructors to implement planning activities in their classroom to facilitate the gradual process of learners' language development (Shin, 2008; Skehan & Foster, 1999). Skehan (1998) posits that learners' language productions can be evaluated in terms of their complexity, accuracy, and fluency. Studies have indicated that due to limited attentional resources and capacity of working memory learners usually cannot use all three aspects of language concurrently while performing a task (Foster & Skehan, 1996, 1999; Yuan & Ellis, 2003, 2004).

complexity, accuracy, and fluency. According to the Limited Attentional Capacity Model or Trade-off effect during language production while cognitive loads are placed on working memory language learners must prioritize either task completion (favoring fluency) or to focus on linguistic aspects (favoring complexity or accuracy). Skehan (1998) claims that there is a trade-off among the language aspects, that is, progress in one aspect may impede the development of another aspect. Under the Cognitive Hypothesis framework (2001, 2011, 2015), task complexity indicates the extent to which cognitive demands need to dedicate so as to complete a given task. Robinson (2001) distinguished resource-directing factors from resource-dispersing factors as two dimensions of task complexity. Resource-directing variables placed cognitive/conceptual demands on the learner in terms of language form required to complete the task. These variables include the availability of temporal and spatial characteristic of the task, as well as, reasoning demands needed to perform the task. Resource-dispersing variables placed performative/procedural demands on learner’s cognitive demands. These variables include task structure, provision of planning time, learner’s prior knowledge. On the basis of the Cognitive Hypothesis, when task complexity increases regarding resource-dispersing dimension, the quality of the production will suffer in terms of the fluency, accuracy, and complexity. Decreasing task complexity in terms of resource-dispersing factors (e.g. by providing planning time) will result in more fluent and more complex language output. Planning process, by lessening the simultaneous cognitive burdens imposing by these aspects of language, helps learners to dedicate almost the equal amount of attention to each of aspects resulting in better performance in a given task.

The majority of literature on planning has focused heavily on learners’ oral performance under the presence or absence of planned conditions (Crookes, 1989; Ortega, 1999; Skehan & Foster, 1997; Ellis & Foster, 2003; Ahmadian & Tavakoli, 2011). Moreover, previous research exploring the effects of planning has neglected probing into the interaction among planned process and other circumstantial factors such as the context of elicitation, task type, and learner’s variability that can influence the planning effect on learners' performance. Most of the researchers studied the effect of a single variable (proficiency, planned conditions, task types, or planning time) on task performance, separately but not in combination (shin, 2008).

Expanding these investigations to discover how learners perform their written tasks in different planning times and as an innovative effort to consider the effect of context variable on
the way of planning process, this paper shed more light on the interactive nature of planning in the writing modality. That is to say, this study is set out to investigate how context-based factors (e.g. educational purposes) can influence the way of Iranian EFL writers plan their performance and prioritize the aspect(s) of language, i.e. complexity, accuracy, and fluency over other aspect(s) in a written argumentative task.

2. Literature Review

2.1. The effect of planning on oral production

First seminal works on planning were primarily concerned with the effect of planning on oral language performance. Crooks (1989), Skehan and Foster (1999), Mehnert (1998), and Ortega's (1999) research findings indicated an overall positive influence of planning on learners' oral performance. Later, however, some investigation put more emphasis on environmental factors so as to get more insight into why and how planning worked. For example, Ortega (2005) found out that one of the significant factors in the effectiveness of planning process was the learners' own perceptions of planning. She observed a trend in language learners' planning goals: some of the learners were communication-oriented and focused primarily on the content of their message and their communicative needs while others were accuracy-oriented and mainly concentrated on syntax and to have an error-free discourse. Likewise, Kawauchi (2005) findings indicated the significant role of the learners' proficiency level on the extent to which pre-task planning influences a given aspect of task performance.

Ellis (2009) undertook a study, basically a review of previous studies, to investigate the impact of three types of planning (rehearsal, pre-task planning, and within-task planning) on the fluency, complexity, and accuracy of L2 oral production. The results indicated a beneficial effect of all the three types of planning on fluency but the outcomes for complexity and accuracy were ambiguous, which reflected the mediating role of other factors such as task design and individual differences. Ellis finally maintained that it is not easy to reach a clear conclusion regarding the effects of planning because there had been no systematic inquiry of key variables.

In EFL context, Saeedi (2015) sought to investigate the combined effect of unguided strategic planning (in which learners do not receive any advice) and task structure (retelling a narrative with a tightly structured storyline) on oral performance, again with a focus on
complexity, accuracy, and fluency. The participants were 60 Iranian low-intermediate-level EFL learners. It was revealed that providing students with opportunity to engage in unguided strategic planning before retelling a narrative with a structured storyline benefited the complexity, accuracy, and fluency of their oral performance.

2.2. The effect of planning on written production

During the recent years, investigations into the effect of planning on writing performance have received more attention. Ellis and Yuan (2004) conducted one of most primary and significant studies on the impact of planning on language learners' written performance. Forty-two Chinese undergraduate EFL learners took part to write a story for a set of six pictures under different planning conditions (no planning, pre-task planning, and online planning). Their performances were measured in terms of complexity (number of different verb forms), accuracy (error-free clauses), and fluency (syllables per minute). They found that pre-task planning has beneficial effects on fluency and complexity, with very little effect on accuracy. On-line planning resulted in significant accuracy, some effect on complexity and no effects for fluency. The results lent support to the claim that the presence of planned conditions leads to improved written performance.

However, the results of some studies contradict the previous assertion about positive effects of planning time on L2 writing performance. Ong and Zhang (2010) revealed pre-task planning has a negative impact on the fluency and lexical complexity of L2 writers' texts. They explored the effect of different task conditions, including different planning time (extended pre-task, pre-task, free-writing, and control) on the fluency and lexical complexity of 108 EFL students' argumentative writing. The results suggested that pre-task planning might actually impede the fluency and lexical complexity of less proficient L2 writers’ composition.

In EFL context, Tavakoli et al. (2013) developed a research to inquire into how pre-task and online planning could affect EFL learners' writing production. Their results revealed that the pre-task planning group generated more complex and fluent writings, whereas the online planning group completed the task with more error-free clauses ending in a more accurate writing performance. Mahmoudi (2017) examined the effect of individual and collaborative planning on the components of writing (content, organization, vocabulary, language use). He found the positive effect of planning on the writing performance in terms of all the components. Zoghi and Shokri
(2019) found a positive effect of pre-task planning (particularly pre-task form-focus planning) on the accuracy of EFL writers. More recently, Fazilatfar et al. (2020) examined the effect of different planning time (i.e. 0 min, 10 min, & 20 min) and task conditions on EFL learners L2 writing accuracy complexity, and fluency. The results indicated the significant effect of the planning time on complexity of the written outputs. Pourghasemian and Hosseini (2020) probed into the effect of planning time conditions (pre-task, extended task, free-writing, and control) on 108 writers' performance. The results revealed the writers in the free-writing group outperformed other groups and also the findings confirmed the significant effect of planning time on the writers' productions.

Some studies (shin, 2008; Ong, 2014; Asgharikia, 2014) sough to address the role of other circumstantial factors such as task conditions and learners' proficiency on language learners' written output. The results indicated a significant effect of these factors on learners' writing performance. Given the effect of the context of elicitation, SLA researchers have not directly addressed the influence of context on the quality of the learners' planning process. Generally, there are some studies (e.g. Vidal & Garau, 2011; Dabaghi et al., 2013) that have investigated the impacts of context on learners' language production and how L2 writers use their capabilities in different contexts. It has been suggested that each context has differential patterns of input exposure leading to different effects on learners' language development (Vidal & Garau, 2011).

2.3. Present study

In the light of previous research, it can be concluded that investigators have achieved various and sometimes contrasting results about the effect of planning on learners' performance. Hence, further research is needed to determine whether the effects of pre-task planning on L2 writing are moderated by some variables such as the context of elicitation. The present study attempts to examine the effect of planning (pre-task and online) in different contexts (academic and institute) on Iranian EFL writers' performance in terms of the aspects of written language production, namely complexity, accuracy, and fluency. This study was design to answer following research questions:

RQ1: Does planning condition (pre-task and online planning) have any significant effect on the complexity, accuracy, and fluency of learners’ written performance?
RQ2: Does context have any significant effect on complexity, accuracy, and fluency of learners’ written performance?

RQ3: Is there any significant interaction between planning condition and context?

3. Method

The study used a quasi-experimental design to probe into the effect of two types of planning (pre-task planning and online planning) in the two different contexts (academic and institute) on learners' writing performance.

3.1. Participants

The participants of the present study were 41 Iranian EFL learners of both genders with the same Persian L1 background. None of the participants have ever been to an English speaking country.

The participants in academic context were 24 full time undergraduate students from two available classes of junior students majoring in English Language and Literature at Persian Gulf University in Bushehr. Their age ranged from 18 to 22. Pre-task planning condition was undertaken in the class with 12 students consisted of 9 females and 3 males and online planning condition was conducted for the class with 12 students consisted of 7 females and 5 males. They had passed basic English language courses in grammar, speaking, listening, and reading; and also most of their specialized courses. Since most of their examinations were conducted in written form, it can be assumed that they partially had a similar experience and familiarity to the writing process and the different writing genres. Hence, they can be considered to constitute fairly homogenous groups regarding their English language proficiency.

The participants in the institute context were 17 advanced learners of Arya institute in Bushehr. Their level of proficiency was evaluated by the institute's standards and the placement tests (e.g. Oxford Placement Test). They were between 15 to 23 years old. They were assigned into two groups of pre-task planning group consisting of 8 learners (4 males and 4 females) and online planning group consisting of 9 learners (7 males and 2 females). Arya institute offers 6 hours of instruction for its English learners weekly and each semester takes 7 weeks.
3.2. Instruments

3.2.1. Pre-writing test

The participants in the two contexts were asked to write a composition in an expository genre so as to ensure that the students in the two contexts have had a relatively the same proficiency in their writing ability. Jacobs et al. (1981) analytic rating scale was utilized to assess the writings. The result of T-test (see Appendix A for analytic scoring scale and T-test results) did not indicate any significant difference between the students' mean scores in the two contexts \([M = 15.6, SD = 1.6, t (39), p < .85]\). As a result, it could be concluded that there was no significant difference between the participants' writing performance in the academic and the institute contexts.

3.2.2. Main writing task

An argumentative genre was chosen as main task for the study. The participants were presented two topics for the task, and they were asked to choose one topic as they wish. The topics for the task were as follows:

a. Household stuff is just a woman's task
b. A rise in birth rate in the Iranian society

These task types (for pre-writing and main writing tasks) were selected because they are not only considered as typical writing assignments in the English language learning contexts (Roca de Larios, Murphy, & Manchon, 1999), but also expected to elicit different aspects of writing tasks (Shin, 2008).

3.2.3. Variable measurements

In order to determine any identifiable differences in the participants' written texts in different planning time and different contexts, their writings were assessed and analyzed in terms of complexity, accuracy, and fluency.

*Complexity (syntactic complexity) measure:* The total number of clauses in the participants' writing productions was calculated and divided by the number of T-units, i.e. the ratio of clauses to T-units (following Ellis & Yuan, 2004).

*Accuracy measure:* Accuracy of the written texts produced by the learners was measured by calculating the percentage of clauses that did not contain any errors (error-free clauses) in terms of syntax, morphology, and lexical choice (Ellis & Yuan, 2004).
Fluency measure: Fluency was measured through the total number of syllables produced by the participants divided by the total number of minutes to complete the task (Ellis & Yuan, 2004).

Two experienced English language teachers were asked to rate the compositions independently. The Pearson correlation coefficient for the scores in terms of complexity was .83, on accuracy was .91, and on fluency was .89 indicating high reliability of the measures.

3.3. Data Collection Procedure

In the current study, planning was operationalized at two levels: Pre-task planning (PTP) and Online planning (OLP). The tasks will be undertaken in normal classroom setting.

In the PTP condition, the participants were requested to complete the writing of each task within 20 minutes (Ong, 2014) comprising at least 200 words. In this way, the participants will be pressured to perform the task without opportunities for on-line planning. However, in this condition they were given 10 minutes to plan prior to the performance of the writing task. The choice of the pre-task planning scheme was based on Crookes (1989), Foster and Skehan (1996), and Ellis and Yuan (2004).

In order to implement the study, following Ellis and Yuan (2004), no detailed guidance was provided regarding how to do the task, but the participants were told to plan their writings in terms of content, organization, and language in the first ten minutes. Each student was handed out a paper with the topics and instructions at the top of it for taking notes and getting ready for the main writing task. The learners were asked not to write the complete text in those papers because they would be taken away after 10 minutes. After planning time, they had 20 minutes to compose the writing task.

On the other hand, the participants in OLP group were given papers with the topic and instructions and were asked to start writing immediately to eliminate the possibility of PTP. They did not have any time for planning the task content and language before the main writing performance. The researcher should be ensured that the participants in this task condition will begin writing immediately. They were given 30 minutes to finish their writing in each task and were asked to write at least 200 words for each task.
The planning time conditions and the way of dedicating time to performing each task in these planning conditions are illustrated in Table 1.

**Table 1**

<table>
<thead>
<tr>
<th>Planning conditions</th>
<th>Pre-task planning (PTP)</th>
<th>Online planning (OLP)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planning time</td>
<td>10 minutes</td>
<td>0 minute</td>
</tr>
<tr>
<td>Transcribing time</td>
<td>20 minutes</td>
<td>30 minutes</td>
</tr>
</tbody>
</table>

4. Results and Discussion

4.1. Results

The two-way MANOVA was conducted to determine the effects of planning time and context on the three aspects of the writers' performance (i.e. complexity, accuracy, and fluency). The means and standard deviations of the learners' written performance in the two contexts and the two planning conditions are presented in Table 2. Given the complexity, the students in the academic (M = 2.13, SD = .26) context outperformed the institute's learners (M = 1.81, SD = .38) in the two planning time conditions. Similarly, the academic students (M = .74, SD = .09) indicated better performance regarding accuracy than the learners in the institute (M = .54, SD = .15). The learners in OLP received better mean score (M = .67, SD = .12) comparing to the PTP group (M = .63, SD = .18) in the accuracy aspect. Regarding fluency the pre-task planners got the higher mean (M = 12.65, SD = 2.20) than the online planner in the two contexts (M = 9.45, SD = 1.80).
Table 2

Descriptive Statistics of the Complexity, Accuracy and Fluency for the Contexts and the Planning Conditions

<table>
<thead>
<tr>
<th>Context</th>
<th>Planning condition</th>
<th>Mean</th>
<th>SD</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>Pre-task</td>
<td>1.816</td>
<td>.345</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>1.803</td>
<td>.433</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>1.810</td>
<td>.383</td>
<td>24</td>
</tr>
<tr>
<td>Institute</td>
<td>Pre-task</td>
<td>2.071</td>
<td>.285</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>2.186</td>
<td>.245</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>2.132</td>
<td>.263</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>Pre-task</td>
<td>1.918</td>
<td>.339</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>1.967</td>
<td>.406</td>
<td>21</td>
</tr>
<tr>
<td>Accuracy</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>Pre-task</td>
<td>.747</td>
<td>.087</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>.734</td>
<td>.092</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.740</td>
<td>.088</td>
<td>24</td>
</tr>
<tr>
<td>Institute</td>
<td>Pre-task</td>
<td>.476</td>
<td>.160</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>.601</td>
<td>.117</td>
<td>9</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>.542</td>
<td>.149</td>
<td>17</td>
</tr>
<tr>
<td>Total</td>
<td>Pre-task</td>
<td>.639</td>
<td>.180</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>.677</td>
<td>.121</td>
<td>21</td>
</tr>
<tr>
<td>Fluency</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Academic</td>
<td>Pre-task</td>
<td>13.692</td>
<td>1.929</td>
<td>12</td>
</tr>
<tr>
<td></td>
<td>Online</td>
<td>8.541</td>
<td>1.583</td>
<td>12</td>
</tr>
</tbody>
</table>
The multivariate tests analysis indicated a main effect of planning time [Wilks' Lambda= .53, F= (3, 35) = 10.25, p < .000, $\eta^2_p = .47$], a significant effect of context [Wilks' Lambda= .42, F= (3, 35) = 16.42, p < .000, $\eta^2_p = .58$], and a significant interaction effect of planning time and context [Wilks' Lambda= .62, F= (3, 35) = 7.07, p = .001, $\eta^2_p = .38$].

The analysis continues with determining the effect of the independent variables and their interaction on each dependent variable separately. To this end, tests of between-subjects effects in MANOVA were used (Table 3). Bonferroni adjusted alpha level was set to .017 to reduce the chance of a type 1 error, i.e. finding a significant result when there is not really one (Pallant, 2011).

**Table 3**

Tests of Between-Subjects Effects

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Dependent Variables</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
<th>Partial Eta squared</th>
</tr>
</thead>
<tbody>
<tr>
<td>Complexity</td>
<td>1</td>
<td>.026</td>
<td>.216</td>
<td>.645</td>
<td>.006</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>Accuracy</td>
<td>1</td>
<td>.031</td>
<td>2.432</td>
<td>.127</td>
<td>.062</td>
</tr>
<tr>
<td></td>
<td>Fluency</td>
<td>1</td>
<td>77.950</td>
<td>27.281</td>
<td>.000</td>
<td>.424</td>
</tr>
<tr>
<td>Context</td>
<td>Accuracy</td>
<td>1</td>
<td>.406</td>
<td>31.96</td>
<td>.000</td>
<td>.463</td>
</tr>
<tr>
<td></td>
<td>Fluency</td>
<td>1</td>
<td>.222</td>
<td>.078</td>
<td>.782</td>
<td>.002</td>
</tr>
</tbody>
</table>

The multivariate tests analysis indicated a main effect of planning time [Wilks' Lambda= .53, F= (3, 35) = 10.25, p < .000, $\eta^2_p = .47$], a significant effect of context [Wilks' Lambda= .42, F= (3, 35) = 16.42, p < .000, $\eta^2_p = .58$], and a significant interaction effect of planning time and context [Wilks' Lambda= .62, F= (3, 35) = 7.07, p = .001, $\eta^2_p = .38$].
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<table>
<thead>
<tr>
<th>Complexity</th>
<th>1</th>
<th>.041</th>
<th>.343</th>
<th>.561</th>
<th>.009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Context *</td>
<td></td>
<td>.047</td>
<td>3.73</td>
<td>.061</td>
<td>.092</td>
</tr>
<tr>
<td>Planning</td>
<td></td>
<td>51.88</td>
<td>18.16</td>
<td>.000</td>
<td>.327</td>
</tr>
</tbody>
</table>

*p < .017

The results demonstrated that planning \[F (1, 37) = 27.28, p < .000, \eta^2_p = .28\] had a significant effect on the participants' written products. More specifically, the pre-task planners wrote faster than online planners. However, it had not a significant effect on complexity and accuracy. The findings revealed that the difference between the writers' accuracy \[F (1, 37) = 31.96, p < .000, \eta^2_p = .46\] in the two contexts was statistically significant. Likewise, complexity aspects of the written outputs \[F (1, 37) = 8.42, p = .006, \eta^2_p = .18\] in the two contexts reached statistical significance. The interaction effect of planning and context was significant on fluency \[F (1, 37) = 18.16, p < .000, \eta^2_p = .32\], but the results showed no significant interaction effect in terms of complexity and accuracy.

4.2. Discussion

4.2.1. Effect of planning time on English learners' writing performance

The findings of the present study indicated a significant effect of planning time conditions on the language learners' writing performance. More specifically, this effect was significant on writing fluency in the two contexts. In other words, the participants in the PTP group produced more syllables per minute than those in the OLP group. These findings are consistent with previous studies which found a considerable effect of pre-task planning on fluency either on oral or written performance (Skehan & Foster, 1997; Ortega, 1999; Ellis & Yuan, 2004; Ahmadian & Tavakoli, 2011). The findings lend support to the claim that the pre-task planning reduces the processing load placed on working memory resources during task completion and enables learners to dedicate more attentional resources to other aspects of the writing process (e.g., encoding ideas into words). Thus, the learners may achieve the ability to produce a higher-quality text.

There are two justifications for the significant effect of pre-task planning on the learners' fluency. First, pre-task planning assists cognitive process in terms of setting goals, generating ideas, and their organization. It helps a writer to generate a clear idea of what the task type (argumentative) required, and to organize the information that need to be translated. These
processes reduce the pressure on working memory during the task completion (Ellis & Yuan, 2004). Second, as Ellis and Yuan (2004) have pointed out pre-task planning assist L2 writers to promote their confidence and due to this positive affective reason, the writers rarely "engage in extensive monitoring" and can write more effective and clear texts (p.78). In other words, pre-task planning may reduce the number of revisions undergone during the writing process. In sum, it seems the writers in pre-task planning engaged in the self-regulation procedures (e.g., goals setting, self-instruction, and self-monitoring) to apply more purposeful and successful writing strategies and to be more confident and positive in their writing abilities (Graham & Harries, 2018).

The results also indicated that the online planners produced more accurate and complex textual products than the pre-task planners. However, it should be noted that this difference was not statistically significant. Producing more accurate compositions by online planners might be due to the additional time that they have at their disposal to attend carefully to linguistic accuracy through editing their internal output (Ellis & Yuan, 2004). In a way, this finding is generally compatible with earlier studies (Ellis & Yuan, 2004; Ghavamnia et al, 2013) which suggest the time writers spend on online planning improves the accuracy of their language productions.

The findings need to be considered with regard to Limited Attentional Capacity Model or the trade-off effect between the aspects of language production (complexity, accuracy, and fluency). As noted, a human being has limited attentional resources, and progress in one aspect may lead to some difficulties in the development of another (Skehan & Foster, 1996). That is, when language learners decide to allocate their attention to one aspect of the language production, there will be limited attention to devote to the other aspects. The present study results indicated that while fluency of the L2 writers’ performance increased, accuracy of their language production decreased. It seems that these two aspects compete with each other in the processes of writing to attain more attention. When the participants tend to prioritize, for example, meaning in their compositions, they are concerned less with grammatical forms. In other words, when learners pay attention to the higher order processes such as generating ideas and organizing them during the writing process, they leave less space to attend to the lower level processes like choosing appropriate lexicon and syntax.

The results also provide some evidence for the Cognition Hypothesis. Examining the results indicated that the provision of planning time before performing the task lead to more fluent
outputs. As the Cognition Hypothesis predicts, a decrease of the resource-dispersing aspect of task complexity provides the learners with the opportunity to deal with their simple and stable state of the current repertoire of L2 knowledge resulting in more fluent productions. However, the results showed the quality of the productions suffered in terms of complexity and accuracy which are not consistent with the Cognition Hypothesis’s prediction. According to the Cognition Hypothesis, decreasing the resource-dispersing factors (e.g. having planning time) affects the complexity and accuracy, as well as fluency, positively (Robinson, 2005, 2015).

4.2.2. Context of elicitation as an effective factor in writing performance

The results revealed that the context of elicitation, in which the participants have dealt with the English language, was a determinant factor that exerted a significant effect on accuracy and complexity. It was observed that the students in academic context exhibited a higher level of writing performance in terms of accuracy and fluency, and the learners in the institute wrote slightly more complex compositions in comparison with the university students. It is possible to explain the learners' different performance in the contexts from two perspectives: first, they had different amount of time to deal with the writing practices. The students in the academic context had to answer the essay questions in most of their exams. On the other hand, the learners in the institute have usually taken multiple choice exams at the end of the terms and their focus are mostly on their speaking ability. Thus, the students in university have more practice in writing compared to the learners in the institute. Second, different contexts may bring about distinctive writing beliefs and learning objectives. The students in the academic context consider the English language as a field of study and may think of it as a future job opportunity, whereas the learners in the institute likely consider English language as a device to communicate with foreign language people and to accomplish possible future educational achievements. It is hypothesized that different contexts have different effects on the learners' way of thinking and perception of language learning (Dabaghi et al, 2013; Vidal and Garau, 2011) and learners in specific contexts are likely to have unique language production beliefs (including writing beliefs) which are exclusive to such context.

Generally speaking, the participants in the academic context outperformed the learners in the institute in terms of accuracy, regardless of planning condition because they had more opportunities to engage in writing activities. On the other hand, the institute's learners indicated better performance on complexity due to different way of thinking and perception of language.
learning. That is, they prioritize meaning on form and tend to involve in complex language to convey their message completely at expense of accuracy.

4.2.3. Significant interactions between planning time and context

It can be observed that an external factor, i.e. context of elicitation, influenced the effect of planning time condition on the learners' written performance. The results indicated that planning time was more effective in the academic context than in the institute in terms of the accuracy. However, the participants in the institute wrote more complicated texts than the academic students in both planning conditions.

For interpreting the effect of planning process in the two contexts, individual differences need to be taken into account. In fact, individual differences come on the stage regarding how planning process affect language learners' production with different language learning perceptions. In this regard, Ortega (2005) remarked that the learners' own perception of planning is a crucial part in order to understand how and why planning worked. She also regarded that in approaching to a task there are natural differences between the language learners, some of them are more predisposed towards communicative goals, whereas some of the learners have more inclination towards syntactical form and correctness. Given the present study, it seems that during planning time the students in the academic context prioritized accuracy and they were more concerned with producing correct language than to produce more complex language. On the other hand, the learners in the institute appear to be more communication-oriented and "accept error and error correction as inherent to their being non-native speakers of the language, and as part of gradual process in learning of second language" (Ortega, 2005, p. 92). They focus on the content of language, resort to more complex discourse, and get closer to the cutting edge of their interlanguage development in order to communicate their message. Thus, the differences between the learners in these two contexts can be attributed to the fact that the learners' orientations and goals play an important role in how and where they budget their planning time.

Trade-off effect between the language production aspects can also be considered as the reason for the interpretation of the interaction between the planning time and context variables and its effect on the participants' writing performance in the two contexts. According to the results, accuracy and complexity compete for more attentional resources, and due to different language
preferences and perceptions of the participants in each context, they tended to prioritize different aspects of their language production. The university students tended to be more form-focused, hence greater importance they give to accuracy and being correct, while the institute' learners are more meaning-focused and consequently they give priority to complexity in order to depict a clear picture of their intended meaning.

5. Conclusion and implications

The main contribution of the present study lies in the investigation of effectiveness of planning time, its interaction and relation with other circumstantial factor (i.e. context of elicitation) as well as the effects of each of these factors, individually, on EFL writer's performance in terms of the three aspects of language productions (i.e. complexity, accuracy, and fluency). The results of this study highlighted the significant effect of planning time on the learners' writing performance. However, the evidence emerged to show that the context of elicitation could impose more impact on writers' performance and could influence the way the learners plan their performance. Hence, in the interpretation of the planning time effect, other environmental factors such as context, level of proficiency, task conditions, and etc., must be definitely taken into account.

The results of this study suggest that providing an opportunity to plan a given writing task before performing that task can improve L2 writers' compositions quality, depending upon their educational and communicative goals. The findings of the current study also indicated that pre-task and online planning had different effects on the participants' written performance. The pre-task planning influenced the participants' textual outputs in terms of fluency, whereas online planning had a significant effect on the accuracy aspect of the written production. Hence, it is suggested that in order to ensure L2 writers demonstrate their highest level of performance in writing process, they need to provide with opportunity to engage in both types of planning (Ellis & Yuan, 2004).
References


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# Appendix A

<table>
<thead>
<tr>
<th>Level</th>
<th>5 Advanced-High</th>
<th>4 Advanced-Low</th>
<th>3 Intermediate-High</th>
<th>2 Intermediate-Low</th>
<th>1 Novice</th>
</tr>
</thead>
<tbody>
<tr>
<td>Criteria</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Content</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Logical development of ideas</td>
<td>Effectively addresses the topic and task, using clearly appropriate explanations, examples, and details</td>
<td>Addresses the topic and task well with using appropriate explanations, examples, and details</td>
<td>Addresses the topic and task using somewhat developed explanations, examples and details</td>
<td>Limited development in response to the topic and task using inappropriate explanations, examples and details</td>
<td>Questionable responsiveness to the topic and task with using no detail or irrelevant explanations</td>
</tr>
<tr>
<td>• Main ideas, supporting ideas, and examples</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Organization</strong></td>
<td>Well organized and cohesive devices effectively used</td>
<td>Fairly well organized and cohesive devices adequately used</td>
<td>Looseley organized and incomplete sequencing; cohesive devices may be absent or misused</td>
<td>Ideas are disconnected and lack of logical sequencing; inadequate order of ideas</td>
<td>No organization and no use of cohesive devices</td>
</tr>
<tr>
<td>• The sequence of introduction, body, and conclusion</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Use of cohesive device</td>
<td></td>
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</tbody>
</table>
### Analytic Scoring Rubric

<table>
<thead>
<tr>
<th>Language in use</th>
<th>Relatively appropriate choice of words and use of idioms</th>
<th>Adequate choice of words but some misuse of vocabulary or idioms</th>
<th>Limited range of vocabulary, confused use of words and idioms</th>
<th>Very limited vocabulary, very poor knowledge of idioms</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Choice of vocabulary</td>
<td>Appropriate choice of words and use of idioms</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Register</td>
<td>Relatively appropriate choice of words and use of idioms</td>
<td>Adequate choice of words but some misuse of vocabulary or idioms</td>
<td>Limited range of vocabulary, confused use of words and idioms</td>
<td>Very limited vocabulary, very poor knowledge of idioms</td>
</tr>
</tbody>
</table>

### Grammar

<table>
<thead>
<tr>
<th>Sentence-level structure</th>
<th>No errors, full control of syntactic variety</th>
<th>Almost no errors, good control of syntactic variety</th>
<th>Some errors, fair control of syntactic variety</th>
<th>Many errors, poor control of syntactic variety</th>
<th>Severe and persistent errors, no control of syntactic variety</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Punctuation/Spelling</td>
<td>Mastery of spelling and punctuation</td>
<td>Few errors in spelling and punctuation</td>
<td>Fair number of spelling and punctuation errors</td>
<td>Frequent errors in spelling and punctuation</td>
<td>No control over spelling and punctuation</td>
</tr>
</tbody>
</table>

*Analytic Scoring Rubric*
Independent Samples T-test Results for Learners' Writing Performance in the Two Contexts

<table>
<thead>
<tr>
<th>Levene's Test for Equality of Variances</th>
<th>T-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td>*p &lt; .05</td>
<td>* p &lt; .05</td>
</tr>
<tr>
<td>F    Sig.    t    df    Sig.    Mean    Std. Error    95% Confidence Interval of the Difference</td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>Equal variances not assumed</td>
</tr>
</tbody>
</table>

| Equal variances assumed                | Equal variances not assumed |
| Equal variances assumed                | Equal variances not assumed |

Acknowledgments

We would like to express our gratitude to the students who very kindly and unconditionally decided to participate in this research.

Bibliography