THE EFFECT OF FOCUS OF STRATEGIC PLANNING ON ACCURACY AND COMPLEXITY IN ARGUMENTATIVE WRITING OF INTERMEDIATE L2 LEARNERS

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ABSTRACT

Following previous studies reporting positive effect for strategic planning on learners’ task performance (Mehnert, 1998; Sangarun, 2001; Yuan and Ellis, 2004) the present research takes into account the possible effects of directing learners’ attention to meaning and form of language. This study is building on information processing models and Kellog (1996) model of writing. The study randomly categorized thirty intermediate learners of English into three groups and asked them to perform an argumentative writing task under three different strategic planning conditions: form-focused, meaning-focused, and unguided-focused strategic planning condition. Their performance was analyzed by a set of one-way ANOVAs, t-tests, and measures of accuracy and complexity. The results indicate that guided strategic planning yielded greater accuracy and complexity in writing than unguided strategic planning with the learners at intermediate levels of proficiency. The results also indicate that the form-focused planners outperformed the other two groups in terms of accuracy, and meaning-focused planner better promoted their writing than form-focused and unguided focused planners in terms of complexity.

Contribution/Originality: This study contributes to the existing literature by indicating that focused strategic planning is effective in both EFL and ESL contexts. The bulk of studies in the literature were from ESL context and this study’s primary contribution was examining the extent to which it worked with EFL classes as well as determining the areas in which strategic planning was mostly effective.

1. INTRODUCTION

For decades, there has been a considerable body of research on task performance (Ellis, 2005). One way of accounting for language performance is by examining the complexity, accuracy, and fluency of the language produced. According to Skehan (2009) successful performance in task-based contexts include: complexity, defined as more advanced language, accuracy, in which the performer tries to make as few errors as possible, and fluency, the rate of speech production. Within the study of tasks, one construct which has attracted much attention is planning. Planning or allocation of some amount of preparation time to learner before completing the actual task is a problem.
solving activity during which learners decide what linguistic devices to use for getting their meaning process (Ellis, 2005; Mochizuki and Ortega, 2008).

Ellis (2005) distinguishes between two principal types of task planning. The distinction is in terms of when planning takes place. The first type of planning is pre-task planning which refers to planning that takes place before performing the task. It involves what Schmidt (2001) calls 'preparatory attention' that helps in performing actions with greater accuracy and speed. The second type is within-task planning which refers to planning that takes place while performing the task. Each of these two types is divided into two other types. Pre-task planning is divided into rehearsal and strategic planning. In rehearsal, learners are given the opportunity to "perform the task before the 'main performance" (Ellis, 2005). That is, the performance of the task for the first time is regarded as a preparation for the main and final performance. On the other hand, strategic planning which is the focus of the present study entails learners' preparation of the content of the task they will perform. In this type of planning, they "have access to the actual task materials" (Ellis, 2005).

Moreover, Kellog (1996) model of writing seems to be an effective theory in writing and planning studies. This model consists of three systems of formulation, execution and monitoring. Each system consists of two main processes. Formulation, as the first step in writing, and the one which is relevant to the purpose of the present study, has two processes: planning and translating. Planning that involves finding goals organizes some ideas associated with these goals. Translating implies determining the vocabulary and syntactic structures and representing these phonologically.

The role that planning plays in applied linguistics is two folded including its theoretical and pedagogical contributions (Ellis, 2005). In fact, planning can be of assistance to both second language acquisition researchers as well as to language teachers. As for the second language acquisition, it is believed that planning roots well at the center of current theories of SLA, and has a robust association with the role of attention in language learning. Moreover, planning paves the way for more investigation into what learners attend to and the impact it might have on the way they use language. With regard to the effects that planning can have on the pedagogy, it can be discussed that teachers can reckon on planning as an efficacious apparatus for indirectly influencing learners' interlanguage development by putting them on the right track. In order to shed light on understanding how learners' plan during strategic planning affects their language production, the present study examines the effect of directing learners' attention to form or meaning while they are engaged in strategic planning on learners' accuracy and complexity of performance.

2. LITERATURE REVIEW

In contrast to fluency, results obtained from studies investigating the effects of strategic planning on accuracy are quite contradictory. On one hand, a number of studies reported that strategic planning helps learners in more accurate production. Ellis (1987) in taking learner's use of regular past tense into account concluded that planning provided opportunities for strategic as well on-line planning were more accurate in use of regular past tense. Mehnert (1998) compared learner's performance under different amounts of planning time (zero-, one-, 10 minutes). She concluded that accuracy level of planners was superior to no-planners. As a result, studies on planned conditions have drawn inconclusive results in effects on accuracy (Ellis, 1987; Crookes, 1989). Ellis's studies found no effect for strategic planning on accuracy (e.g. Crookes, 1989; Skehan and Foster, 1997; Ortega, 1999).

Regarding complexity, a number of research yield more certain and less mixed results contrary to accuracy of learner's production. Crookes (1989) reported that giving learners ten minutes of strategic planning before the task performance led learners producing more complex sentences than no-planners. Foster and Skehan (1996) reported that, in all three tasks, detailed planners produced more subordination in comparison with the undetailed planners and that no-planners produced the minimum amount of subordination in their study. Wendel (1997) found that these planners produced more complex grammatical structures but not rich on the lexical aspect of their language.
Seyyedi et al. (2013) investigated the effect of pre-task planning time on L2 learners' narrative writing performance. When complexity is concerned, the findings indicate that planning has a positive effect on complexity of the participants' performance. Some previous research reporting the gain in complexity as a result of planning time conditions includes (Crookes, 1989; Skehan and Foster, 1997; Wigglesworth, 1997; Mehnert, 1998; Foster and Skehan, 1999; Tavakoli and Skehan, 2003; Rahimpour and Hazar, 2007). This can be justified according to the fact that planners tend to focus on meaning and plan the content of their performance and thus, produce more complexity. Foster and Skehan (1999) studied the effects of focus of strategic planning on oral production. Their study indicated that two different focuses of strategic planning, namely, meaning-focused and form-focused strategic planning, did not result in different effects on the accuracy, complexity, and fluency of speech. Crookes (1989) as cited in Sangarun (2005) study, in which the participants were guided to plan both the meaning and the form of their speech, suggested that higher complexity was achieved through both meaning/form-focused strategic planning than the minimal strategic planning condition, but it didn't result in higher accuracy than the minimal strategic planning condition.

Kawauchi (2005) used three different proficiency levels to show the effect of the interaction between proficiency and pre task planning on task performance. Sixteen low intermediate, L2 high-intermediate, and 11 advanced L2 Japanese learners participated in this study. The content of pre task planning was also specified through choosing three kinds of planning: writing, rehearsal, and reading. The results of the study showed that while strategic planning improved fluency, complexity, and accuracy, it appears that strategic planning worked to the advantage of high-intermediate L2 learners since they performed at the same level of fluency as the advanced L2 learners. Planning also had a negative effect for advanced L2 learners in terms of repetition as an aspect of fluency. In addition, planning appears to have improved complexity in the high-intermediate learners more than in the advanced intermediate learners. Advanced learners were also at a similar level of accuracy to the high-intermediate learners under both planning and non-planning conditions. The low intermediate learners benefited most from the planned task in terms of accuracy. Focus on form has been discussed as the rationale for task planning research in recent years (Ortega, 1999; Ellis, 2005). Focus on form is a condition where learners’ attention is drawn precisely to a linguistic feature as necessitated by a communicative demand (Doughty and Williams, 1998). There have been some studies in order to investigate the relationship between planning and focus on form. According to Tarone (1985) interlanguage variability hypothesis, the accuracy level of learners’ production was determined depending on how much they attended to form of language. Ellis (1987) in order to investigate this hypothesis, examined the written and spoken performance of post-beginning/ intermediate EFL learners. He used three story-telling tasks which were different in modality and amount of planning. The results indicated that in the written task, learners performed more accurately; on the other hand, when undertaking the oral task without rehearsal opportunity, learners produced the least accurate production. There is strong evidence in the literature on planning for the positive effects of strategic planning on task performance (e.g., (Foster and Skehan, 1996; Yuan and Ellis, 2003)). However, while in most of the previous research a general planning condition, i.e., strategic planning and on-line planning, was compared with a no-planning condition, the way in which strategic planning aids task performance has not been fully accounted for. In fact, it is not clear what learners were actually doing during planning time because what learners did during the planning time has often been left to the individual learners themselves. To shed light on how strategic planning assists task performance, this study investigates the effects of manipulating learners’ attention so that they will focus on either form or meaning. So this study was designed to answer the following research questions:

Q1. Does strategic planning affect writing accuracy and complexity of learners?
Q2. Do learners who focus on form during strategic planning write more accurate and complex sentences than those who focus on meaning?
3. METHODOLOGY

3.1. Participants

This study was conducted twice a week at Simin language institute in Qaemshahr. Thirty students participated in the study. The population consists of 20 female students in strategic planning groups (form focused and meaning focused) and 10 female students in unguided strategic planning group. Their age ranged from 17 to 20. According to the result of (OPT) test and the background knowledge of students who completed 4 years of English study, involving approximately 480 hours of classroom instruction, they were all at intermediate level.

3.2. Instruments

The first instrument in this study was an OPT test (Oxford Placement Test version1.1, 2001) in order to select 3 homogeneous groups of participants before writing different task types. This test was conducted for tapping the student’s vocabulary, structure, reading comprehension and writing knowledge.

The other instrument in this study was six writing tasks involving learners in argumentative writing task. In every session teacher introduced some topics, asked students select their topic of interest. So by a majority interest, the topic was selected. The treatment lasted almost 6 sessions. The main instrument was an argumentative task in which one topic was selected as pre-test and post test. Before the treatment phase, the topic was given to students and for the second time it was given after the treatment phase: task that was written in three strategic planning conditions (form-focused, meaning-focused, and unguided strategic planning). The topic assigned to all three groups in this study was the same. It was adopted from Foster and Skehan (1999). Participants in each group was asked to complete writing task under one of the three conditions Participants in meaning focused and form-focused were provided with time to engage in strategic planning before the task performance. In this argumentative task, adopted from Foster and Skehan (1999) a group of people was supposed to be in a balloon which was losing altitude. All other tricks had been used and the only way to avoid a crash was to throw one or more of those individuals on the balloon. The aim of this writing task was for the learners to decide which of the passengers should be thrown out.

4. PROCEDURE

An Oxford placement test was administered to the available pool of subjects to tap their proficiency level. Those score half of standard deviation above and below the mean were considered as the subjects of the study. Then they were randomly divided into 2 experimental and one control groups. Each group included 10 participants. They were asked to perform an argumentative writing task under three different strategic planning conditions: form-focused, meaning-focused, and unguided-focused strategic planning condition. The topic assigned to all three groups in this study was the same. It was adopted from Foster and Skehan (1999). As for the meaning – focused strategic planning condition (MF), learners were instructed in how to plan the meaning of their written production before engaging in strategic planning. A five to ten–minute instruction was given to them in order to direct them to meaning. The instruction was about the important role that coherence plays in making a writing more strongly linked. The students were introduced to the idea of a balloon debate. The teacher presented ideas that each character might use to defend his or her right to stay in the balloon and students were encouraged to add ideas of their own.

In the form-focused strategic planning condition (FF), learners were instructed in how to plan the form of their written production before engaging in strategic planning. The students were introduced to the idea of a balloon debate and then shown how to use modal verbs and conditionals in the reasons a doctor might give for not being thrown out of the balloon, e.g. I take care of many sick people- if you throw me out. Participants under unguided strategic planning (UG) were expected to start the task immediately after the topic had been explained to them. This condition was used as the control group.
The time provided for instruction, strategic planning, and task performance were five minutes, ten minutes, and fifteen minutes respectively.

5. RESULT

In order to probe if strategic planning affects writing accuracy and complexity of students, the descriptive statistics tables concerning accuracy and complexity were run. The results indicated that means of 3 groups were not different at pre test before the instruction in accuracy (FF=67.00; MF=71.50; UF=68) and in complexity (FF=55.10; MF=56.70; UF=56.90).

In order to check whether the variances in the scores are the same for each of the three groups, Leven's test for homogeneity of the variances was ran. The results are illustrated in Table 1 and 2.

### Table 1. Test of Homogeneity of Variances (Accuracy score pretest)

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.471</td>
<td>2</td>
<td>27</td>
<td>.247</td>
</tr>
</tbody>
</table>

Source: SPSS version 16

### Table 2. Test of Homogeneity of Variances (Accuracy score pretest)

<table>
<thead>
<tr>
<th>Levene Statistic</th>
<th>df1</th>
<th>df2</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>.893</td>
<td>2</td>
<td>27</td>
<td>.421</td>
</tr>
</tbody>
</table>

Source: SPSS version 16

As indicated in the tables the sig. value is greater than .05 (Sig.>.05) then there is not a significant difference among the mean score on dependent variable for the three groups. In order to see whether the instruction was effective, a posttest was run. The results are presented in the table 3 and 4.

### Table 3. Test of Homogeneity of Variances (Accuracy score pretest)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>6166.667</td>
<td>2</td>
<td>3083.333</td>
<td>97.941</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>850.000</td>
<td>27</td>
<td>31.481</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>7016.667</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS version 16

### Table 4. Test of Homogeneity of Variances (Accuracy score pretest)

<table>
<thead>
<tr>
<th></th>
<th>Sum of Square</th>
<th>df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>5995.400</td>
<td>2</td>
<td>2997.700</td>
<td>132.925</td>
<td>.000</td>
</tr>
<tr>
<td>Within Groups</td>
<td>608.900</td>
<td>27</td>
<td>22.552</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>6604.300</td>
<td>29</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS version 16

As indicated in table 3 and 4 the sig. value is less than .05, then there is a significant differences somewhere among the mean scores on the dependent variables for the three groups at the posttest. In order to tap where the differences among the groups occur, the posttest Scheffe test was run for the multiple comparisons. The results indicated that there were significant main effects for all three groups: the effects of all factors are significant beyond the .05 level, so there is a significant difference between control and experimental groups. These results reject the first null hypothesis and strategic planning affect EFL learners' writing accuracy and complexity.

To probe the second hypothesis of the study stating 'learners who focus on form during strategic planning do not write more accurate and complex sentences than those who focus on meaning', the Duncan homogenous tests
retrieved from the one-way ANOVA analyses of the first question were used. The results of Duncan homogenous subset for accuracy indicated that learners who focus on form during strategic planning write more accurately than those other groups. Therefore the second null hypothesis was rejected.

To investigate the complexity aspect of the second research question, the Duncan subtest for complexity was used. The results of the Duncan homogenous subset indicated that learners who focus on meaning during strategic planning write more complex than the other groups. Therefore the second null hypothesis was rejected. More precisely, learners who focus on meaning during strategic planning write more complex sentences than those who focus on form and unguided focused.

6. DISCUSSION

There are different studies that support the claim that providing learners with opportunity to engage in strategic planning helps them to achieve a better performance (e.g., (Crookes, 1989; Foster and Skehan, 1996; Skehan and Foster, 1997; Yuan and Ellis, 2004; Tavakoli and Skehan, 2005)). Nevertheless, many studies have not provided learners with specific instruction on how they should plan, thus leading to learners attending to form, meaning or both. Therefore, in spite of a few studies examining the effects of the manipulation of learners' attention to form or meaning (Ellis, 1987; Wendel, 1997; Foster and Skehan, 1999) or to both meaning and form (Foster and Skehan, 1996; Sangarun, 2005) on task performance, this study suggests that directing learners' attention to different aspects of production, namely form or meaning, during task performance results in greater accuracy and complexity. The UG group's being the least accurate and complex group might be attributed to the fact that they did not have the merit of having treatment which means that they were deprived of the grammatical and conceptual points that could be useful in their production, hence, being a bit confused how to start writing and whether to think first and then write or the other way around, they just rehearsed what they wanted to produce. Whereas a great body of research indicates that providing learners with the opportunities to engage in pre-task planning seems to facilitate the conceptualization process (Foster and Skehan, 1996; Skehan and Foster, 1997; Ellis, 2005; Sangarun, 2005) the results of this study suggest that directing learners' attention to form seems to increase their ease with the conceptualization process to a considerable extent. During planning and production, it is difficult for learners to attend to both meaning and form of the language simultaneously due to their limited working memory capacity (VanPatten, 1990). In fact, they naturally give precedence to meaning rather than form (Ellis, 2005) and, therefore, they may overlook certain formal features. This study suggests that form-focused planning would strike a balance between form and meaning and, therefore, increase their accuracy. The results of the present study are also consistent with Baddeley and Logie (1999) model of working memory. In Baddeley and Logie’s model, the central executive system relates working memory and long-term memory and allocates attention to specific long-term memory systems.

7. CONCLUSION

The result of the study support the hypothesis that directing learners' attention to form or meaning of language can help them in better performing a task than when their attention is not directed to any aspect of language. The finding of the study also show that in terms of accuracy, form-focused strategic planning improves learners' performance more than meaning-focused strategic does, and in terms of complexity, meaning-focused strategic planning improves learners' performance more than form-focused strategic planning does.

The finding of the present study suggests that directing learners' attention to the form and meaning of language can be more effective than just leaving learners on their own to have strategic planning. In fact, the study found that directing learners' attention to the meaning or form of language through instruction would change learners' written production for better complexity and accuracy.
This study has important pedagogic implications for L2 writing by giving learners some times to plan their written production that can be of great help in making them more accurate and complex in classroom. That is, it would be to the benefit of learners to have strategic planning; because, this may compensate for their working memory limitations by providing them the cognitive window required to pay attention to form as they are mainly concerned with communication. It is also to be noted that directing learners' attention to form or meaning of language can be a good device in assisting learners to strike a balance in attending to form and meaning of language.

The current research has some limitations. First, this study was just conducted by using L2 learners of English at intermediate level so further research can replicate this study using learners at some other proficiency levels. Second, the length of planning time in this study was limited to 10-minute planning time. To explore the effects of different lengths of planning time, different groups should be allocated different lengths of time to plan strategically which might produce different results. Third, along with decision-making task, the other different types of task (personal and narrative) can be used to see whether different task types have differing effects on the learners' written performance.

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**Contributors/Acknowledgement:** All authors contributed equally to the conception and design of the study.

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