

Task Implementation and EFL Learners' Attention to Form: Examining the Effects of Pre-Task Planning and Post-Task Transcription

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Received: June 13, 2022; **Accepted:** March 12, 2023

Abstract

There is ample research evidence indicating that task implementation options and design features differentially affect the linguistic quality of second language (L2) oral output. The overarching aim of the current research was to add to the available body of research findings by investigating what effects the combination of two task implementation options, namely pre-task planning and post-task transcription, exerts on L2 learners' oral output. The study involved 22 Iranian EFL learners who were presented with a picture story to be narrated under one of the following four conditions: pre-task planning (PTP), post-task transcription (PTT), both pre-task planning and post-task transcription (PTP/PTT), and control. Findings showed that while pre-task planning increased fluency and complexity, the anticipation of post-task transcription enhanced focus on form as indicated by more accurate performance. More importantly, pre-task planning along with the foreknowledge of post-task transcription of performance made for an exponential increase in accuracy, a gain which was achieved to the detriment of complexity. The outcomes are of pedagogical significance in that they lend support to the efficacy of using pre-task planning opportunity along with the anticipation of post-task transcription to elicit the highest accuracy level while learners are primarily concerned with conveying meaning.

Keywords: Pre- task planning, post- task transcription, complexity, accuracy, fluency

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INTRODUCTION

As a significant outgrowth of communicative language teaching (CLT), task-based language teaching (TBLT) has been accorded considerable attention ever since the shift of paradigm from structural to the communicative approach, which underscored the centrality of meaning-based tasks as a means of initiating and promoting interaction among language learners (Ellis, 2003; Ellis, Skehan, Shintani, & Lambert, 2019; Skehan, 2003, 2018). Tasks are of high pedagogical value in current second language acquisition (SLA) because they help instructors elicit learners' focused language use. Besides, they facilitate language acquisition through providing input to learners and giving them opportunities to use language meaningfully (Ellis, 2003; Swain, 1995, cited in Baleghizadeh & Asadi, 2013). Within task-based research, a growing body of investigations has studied factors which are concerned with identifying those variables which prompt learners to focus on form while performing a meaning-based task. This endeavor has been primarily motivated by the assertion that the limited nature of attentional capacity prevents learners from simultaneously concentrating on both form and meaning; therefore, the meaning-based nature of a task may predispose them to mainly focus on conveying meaning at the expense of attention to form. The focus on form is also important in that when coming up as a result of communication, it can meet learners' needs and experiences, problem-based, and consequently more timely and conducive to learning (Foster & Skehan, 2013; Long, 1988; Long & Robinson, 1998).

Pre-task planning, which is also called strategic planning, is one of the most extensively researched factors in SLA. Previous research has established that planning before doing a task affects not only the aspect of meaning, i.e., fluency, but also form, i.e., complexity and/or accuracy (Ellis, 2009). By and large, the findings have suggested that though pre-task planning consistently advantages fluency and complexity, there is little evidence for its positive effects on accuracy

(Bui & Skehan, 2018; Skehan, 2018). The mixed findings regarding the effects of pre-task planning on accurate L2 production are attributed to such factors as learners' level of proficiency, task structure, and provision of guided or unguided planning (Bui, 2014; Foster & Skehan, 1996; Li, Chen, & Sun, 2015; Saeedi, 2015).

On the other hand, the act of transcribing as a post-task implementation variable has been shown to cause notable effects on L2 performance (Cooke, 2013; Foster & Skehan 2013; Hsu, 2017; Lynch, 2007; Qian, 2014). Overall, available findings indicate that learners' focus on the requirement to transcribe their task-based performance prompts them to notice and focus on the form in their output, hence more accurate and/or complex performance (Foster & Skehan, 2013).

As was briefly reviewed above, the implementation variables of pre-task planning and post-task implementation have differential effects on L2 learners' production, in general and focus on form in particular. However, the way these variables affect learners' attention and production remains to be investigated. In effect, to the best of the researcher's knowledge, no published research has addressed this issue. Thus, the current study was carried out to throw more light on the functioning of planning by investigating the conditions under which pre-task planning may be conducive to a focus on form. Such work can be a worthwhile undertaking as it provides further theoretical explanation and empirical evidence for the way planning interacts with other task implementation variables to develop complexity, accuracy, and fluency of L2 production which are key to achieving the functional proficiency underlying meaningful and effective L2 use (Ellis, 2009; Skehan, 1998).

LITERATURE REVIEW

As was mentioned previously, the main aim of the present investigation was to simultaneously examine the effects of pre-task planning and post-task implementation on L2 learners' oral performance in general and attention to form in particular. In what follows, the theoretical issues and empirical

evidence related to the above variables are reviewed. First, we turn our attention to the variable of pre-task planning.

Pre-task Planning

Planning can happen either before or while performing a task (Ellis, 2005, 2009). In the case of pre-task planning, learners are allowed to get prepared before carrying out a given task. Based on Ahmadian (2012), what distinguishes careful online (also called within-task) planning from pressured online planning is that whilst in the case of the former learners are given unlimited time to prepare their speech when doing a task, in the latter case they are required to complete the task under time constraint. The psycholinguistic justification for providing unlimited online planning time, according to Ahmadian and Tavakoli (2011), is that given their limited attentional capacity, performing a meaning-based task under time limit prompts learners to primarily attend to communicating the message and, consequently, little attention is left for focusing on form. On the contrary, when their time is unlimited, they can take time to concentrate on form as well and monitor their production for accuracy.

As stated by Ellis (2005), pre-task planning is distinguished from rehearsal where the same or slightly changed task is completed before subsequently doing the main task more efficiently. While planning strategically, learners may encode and express content to prepare their message with respect to form and content before actually doing the task they are assigned. Of the different variations of planning, pre-task planning and repetition are two of the most extensively researched for their effects on L2 production (Stroud, 2019). Planning, in particular pre-task planning, can foster focus on form even as an activity outside the task itself (Ellis, 2016, cited in Hosseinzadeh, Shabani, & Ebadi, 2018).

From a theoretical point of view, the opportunity to plan helps learners more efficiently use their limited processing capacity (Schmidt, 2001), making it mentally difficult for them to simultaneously focus on form and

one aspect of language for others. Tasks, by virtue of being meaning-based, would naturally induce learners to primarily pay attention to meaning not form (VanPatten, 1990). Pre-task intervention through planning is assumed to help learners direct their attention towards form during task performance by making more attentional capacity available and reducing the pressure on their working memory (Skehan, 1996). To provide a plausible psycholinguistic account as to the effects of planning on L2 output, previous studies (e.g., Ahmadian, 2012; Ahmadian and Tavakoli, 2011) have made reference to Lee's (1999) process model according to which speaking is the output of three stages: at the first stage, a message is conceptualized, then appropriate words are selected and grammatically correct sentences are built to formulate this message linguistically, and, finally, the appropriate muscles are moved to articulate overt speech sounds. Based on Ellis (2005, 2009), enhanced fluency is a result of the facilitated conceptualization. Pre-task planning also benefits formulation and even articulation leading to increased accuracy or complexity. According to Lee's (1998) trade-off account of attentional capacity pointed to above, pre-task planning results in increased complexity and reduced accuracy, or vice versa.

To date, planning, either pre-task or online, has been explored in diverse contexts and from different perspectives. Adopting a process-oriented approach, a number of investigations have delved into what learners actually do and what strategies they employ when they plan in order to better perform a given task (Lee & Burch, 2017; Ortega, 2005; Pang & Skehan, 2014; Saeedi, 2021; Tabari, 2022). Whereas the above cited studies have focused on the planning process, a host of studies have researched the effect of planning on the linguistic product relative to complexity, accuracy, and fluency (e.g., Choe, Ryu, & Jeon, 2022; Eyy et al., 2022; Farahanynia & Khatib, 2021; Foster & Skehan, 1996; Khatib & Farahanynia, 2020; Li & Fu, 2016; Mochizuki & Ortega, 2008; Skehan, 2018; Tabari, 2020; Tabari & Wang, 2022; Tavakoli & Skehan, 2005; Yuan & Ellis, 2003). With respect to

the fluency and complexity of production, there is plethora of evidence showing that planning prior to task performance advantages these facets of L2 production (Khezrlou, 2020). The facilitative effects reported for fluency are ascribed to lower levels of stress learners experience while processing language and negotiating meaning online. More complex output is also explained in light of the conviction that the opportunity to plan helps learners build on the cutting edge of their L2 knowledge in terms of structure and lexis (Ortega, 1999).

Concerning accuracy, the literature on planning has yielded mixed results. While some researchers have claimed positive effects (Ellis, 1987; Mochizuki & Ortega, 2008; Tavakoli & Skehan, 2005), others have not observed any significant gains (Elder & Iwashita, 2005; Yuan & Ellis, 2003). Such mixed results are seen attributed to differences in learners' willingness and ability to monitor their output, their level of proficiency, motivation, or attitude, task complexity, task type, the length of planning, and whether the learners receive any guidance from the teacher during planning time (for a comprehensive review, see Yang, 2013). Hence, further research should be done to establish what variables mediate the way pre-task planning leads to focus on form.

Post-task Transcription

Language educators may use pedagogical intervention tools before, during, or after language use. The post-use intervention is particularly efficient in facilitating learners' efforts to attend to form (Skehan & Foster, 2001). In general, post-task activities affect learners' earlier task performance itself, or their interlanguage development (Skehan, 2014). In the case of language development, task design makes it possible to highlight certain language features which are supposed to develop through the post-task activity. As regards the first category of post-task activities, previous findings illustrate that the anticipation of two activities which link back to an earlier task completed by learners affects their performance. These activities include post-task public performance and transcription both of

which are reported to raise accuracy and also complexity (Bui & Skehan, 2018). It is argued that contrary to the act of speaking where the communicative pressure induces learners to prioritize meaning conveyance, transcribing their own performance gives them more processing time to reflect upon and monitor it for targetlikeness (Adams, 2006).

The post-task activity of transcription has been investigated by some researchers (e.g., Cooke, 2013; Foster & Skehan 2013; Hassanzadeh-Taleshi, Yaqubi, & Bozorgian, 2021; Hsu, 2017; Lynch, 2001, 2007; Mennim, 2003; Qian, 2014; Stillwell et al., 2010). Generally speaking, the results suggest that performance leads to improvement in noticing several grammatical points which results in permanent changes in performance (Lynch, 2001; Stillwell et al., 2010). Interestingly, findings have also unveiled that what affects performance is the anticipation of a post-task activity not the transcription itself (Foster & Skehan, 2013). The results for post-task transcription done under variant conditions have also been of significance, pointing to advantageous effects of pair-based transcription on syntactic complexity and the positive influence of individual-based transcription on lexical complexity (Qian, 2014). Lastly, post-task transcription, when coupled with task implementation variables, has yielded notable results. It has been documented that post-task transcription in conjunction with task repetition generates higher levels of accuracy in oral performance, which could be observed even when performing a new task (Hsu, 2017).

To conclude, the above review shows that giving the learners time for planning before doing a given task and requiring them to transcribe their performance after doing it have been utilized as pre- and post-task pedagogical intervention tools to direct their attentional resources to aspects of form while performing a task, with the opportunity to plan easing the communicative pressure and processing demands and post-task transcription making form salient in task performance. Such interventions lead to variant results in learners' oral output. Specifically, whereas

pre-task renders beneficial effects on fluency and complexity, its effects on accuracy have been mixed. Post-task transcription also exerts a positive influence on accuracy and/or complexity.

PURPOSE OF THE STUDY

The inconclusive findings regarding pre-task planning effects on the accuracy of L2 speech pushed the researcher to investigate whether and how this variable interacts with post-task transcription to make form more salient in learners' speech in a grammar-based task. Thus, the present research was geared towards answering the following research questions:

1. What impact does pre-task planning exert on the complexity, accuracy, and fluency of L2 speech?
2. What impact does post-task transcription exert on the complexity, accuracy, and fluency of L2 speech?
3. What impact does pre-task planning in tandem with post-task transcription exert on the complexity, accuracy, and fluency of L2 speech?

METHOD

Participants

The participants were sixty male Iranian intermediate EFL learners from four intact classes of an Iranian language institute in the summer semester of 2019. They were native speakers of Persian whose age ranged from 16 to 23. Given that the study was conducted in an EFL context, these learners had limited communicative use of English outside the class. They had different motivations for learning English including immigration, furthering their careers, and getting ready for Iranian university entrance exam. The participants attended the classes twice a week in a twenty-session semester. They were taught a locally developed English Language Teaching (ELT) material. To ascertain that they were comparable in terms of proficiency, the Quick Oxford Placement Test was administered. The participants volunteered

to take part in the study; however, to allow for ethical considerations, they were asked to sign written consent forms prior to the study. They were also informed that the results would not be taken into account for their evaluation and would be used for research purposes. The learners were randomly assigned into four performance conditions of fifteen each: pre-task planning (PTP), post-task transcription (PTT), both pre-task planning and post-task transcription (PTP/PTT), and control. The details for each condition are provided below.

Design

Since the present research was based on a between-groups design, each learner carried out the assigned task under one of the following conditions: pre-task planning, post-task transcription, pre-task planning combined with post-task transcription, and control. Pre-task planning and post-task transcription were the independent variables whose effects on performance were analyzed relative to the complexity, accuracy, and fluency as the dependent variables.

Procedure

To collect samples of aariicsssssss seeec,, yyyyyy re rerrrr ed oo eerfr m a narrative task. Doing such a task involves recounting a story developing in a series of related pictures. Second language educators have widely used aarraiee sssss nncssssrsss oorr tttt e aaareers' speech. The reason for the extensive use of this task type is that it gives learners a chance to get involved in real life communication, produce language, notice the gap in their interlanguage, and their performance (Ellis, 2003; Swain, 2005). The picture story employed in the present research was adopted from Swain and Walter (1990). The six sequenced set of pictures showed a passerby who is walking alone along busy streets, seemingly unaware of the commotion of city life. Because he is listening to music through a Walkman, he does not heed the

screaming of police siren, shoplifting, car accidents, or a tiger going past him! Finally, he safely gets home (see Appendix A).

To control for the potential influence of an unfamiliar setting on aaricsssssss eerforcccc e (Seeaa,, 8888), eee aaaa ee re clll ecdddnn ttt act classes during weekly scheduled class times. As was mentioned above, the participants narrated the picture-based story under one of the following conditions:

Those who were assigned to the control group did not have sufficient time for planning their speech before doing the task. In fact, they had only thirty seconds to look at the sequenced pictures and retell the story. Furthermore, they were not required to listen to their recorded performance and transcribe it later. The learners in the PTP group who carried out the same narrative task were given five minutes to plan their speech before their narration. The decision as to the length of planning time followed previous research findings (see Bui & Skehan, 2018). The participants in this group were not required to transcribe their speech for further analysis and practice. Participants in the PTT had to check the pictures in thirty seconds before narrating the story developing in them. However, they were notified that they would be required to transcribe their performance. Following Foster and Skehan (2013), the learners in this group were told that after task performance, the researcher would give them a copy of their recorded performance to take home to listen and transcribe. They were instructed to repeatedly listen to each phrase, accurately transcribe what they heard, and finally take note of their errors. It needs to be mentioned that they were informed that their transcripts would be discussed in the following sessions. More details are presented in Appendix B. Finally, learners who were in the PTP/PTT group were allowed to prepare their speech in five minutes. Besides, they were informed that they would be given a copy of their recorded performance to listen and transcribe later at home.

aa gggg gecrr eed each aaric'''''' ' eerfr aa cce, eee researceer subsequently transcribed, segmented, and analyzed it with respect to the operational definitions of complexity, accuracy and fluency provided below.

and variable application of the same set of criteria as well as human error, subjectivity, bias, inattention, lack of experience, or preconceived bias may lead to unreliable evaluation (Brown, 2004, cited in Doosti & Ahmadi Safa, 2021), they were advised to take measures to address this serious concern. Therefore, to alleviate possible inconsistent ratings caused by the above factors, the researcher asked a colleague to randomly check about ten percent of the transcripts to make sure of the reliability of the coding procedure. To enhance the likelihood of consistent and invariable ratings, we had some brainstorming prior to her checking. The obtained inter-rater reliability coefficients for each measure of complexity, accuracy, and fluency were greater than .80, which ensured reliable coding. It should be noted that, in the case of disagreement between the raters, they discussed the item until they reached an agreement. The disagreement cases chiefly pertained to measuring syntactic complexity and, in particular, defining the analysis of speech (AS)-unit boundaries. To illustrate, the following sentence extracted from one participant's narration was coded as two AS-units by the second rater:

- ^{AS}₁[*The pedestrian does not pay any attention*]^{AS}₂[*to his environment.*]

However, based on Foster, Tonkyn, and Wigglesworth's (2000) definition, the above extract should be considered a single AS-unit:

- ^{AS}₁[*The pedestrian does not pay any attention to his environment.*]

each utterance is analyzed with regard to complexity, accuracy, and fluency; performance areas which constitute the most viable goals distinguished in the current approach taken by the researchers (Ellis, 2003; Ellis & Barkhuizen, 2005; Skehan, 2009). In general terms, complexity of speech is defined with respect to such criteria as its size, elaborateness, richness, and diversity. Accuracy refers to how target-like and error-free language use is. Fluency is characterized in terms of the number of pauses, hesitations, or reformulations in speech and also the extent to which it is smooth, easy, and eloquent (Michel, 2017).

As displayed in Table 1, of the various working definitions put forward for the CAF, the researcher adopted the following measures previously used in similar studies and specified by Ellis and Barkhuizen (2005) to measure aariicssssss seeech nna oo re reiaeeee eeeee e:

Table1: Measures used to tap complexity, accuracy, and fluency

Complexity	Accuracy	Fluency
<p><i>Syntactic complexity:</i> the number of clauses divided by the number of AS-units (i.e., an independent clause or sub-clausal unit, together with any subordinate clause(s) associated with it) in each seeakessutteacce (Foster et al., 2000).</p> <p><i>Syntactic variety:</i> the total number of different grammatical verb forms in terms of tense and modality in each participatt ss seeech.</p>	<p><i>Error-free clauses:</i> the percentage of error-free clauses in terms of syntax, morphology, and lexis.</p> <p><i>Correct verb forms:</i> the percentage of correct verbs with respect to tense, aspect, modality, and subject-verb agreement in each participatt ss seeech.</p>	<p><i>Speech rate A:</i> the number of syllables in each aatticiaantss speech divided by the total number of seconds spent on task performance and multiplied by 60.</p> <p><i>Speech rate B:</i> the number of meaningful syllables (excluding repeated, reformulated, and replaced syllables, words, and phrases).</p>

It should be pointed out that in analyzing the complexity of performances, AS-units were preferred over T-units because whereas the definition of the latter is inadequate to deal with a comprehensive analysis of oral production, the former is a clearly defined measure which because of its flexibility can be easily applied for different research purposes (Foster et al., 2000). Besides, related previous studies have employed this measure of complexity which renders the findings obtained here more comparable with theirs.

Data analysis

Having coded the data, the researcher quantitatively analyzed them. First, the means and standard deviations related to complexity, accuracy, and fluency were calculated using the SPSS. Next, one-way between-groups ANOVAs were run to determine the statistical significance of mean differences across the groups. Effect sizes were obtained for all omnibus F-sssss rrrhhhh h²

calculated by dividing the sum of squares between groups by the total sum of squares. The F -test is used to determine the significance of the differences according to which .01, .06, and .14 indicate small, moderate, and large effects, respectively. Finally, Scheffe post-hoc test was used to specify the exact locations of significant mean differences.

RESULTS

The major aim of this investigation was examining whether and to what extent EFL learners' success in form and fluency was influenced by the combination of pre-task planning and post-task transcription. Descriptive statistics related to the dependent variables of the study are displayed in the following table.

Table 2: Group means and standard deviations for complexity, accuracy and fluency

	Mean (SD)			
	Control	PTP	PTT	PTP/PTT
C/AS	1.018 (.021)	1.088 (.031)	1.034 (.03)	1.05 (.033)
DGV	5.77 (.61)	8.87 (1.06)	6.53 (.91)	7.24 (1.9)
Correct clauses	28.71 (1.24)	29.54 (.98)	29.91 (.99)	31.75 (.77)
Correct verbs	17.55 (1.37)	18.76 (1.52)	19.32 (1.68)	21.04 (1.85)
Rate A	47.52 (.407)	49.88 (.92)	47.31 (.602)	49.64 (1.47)
Rate B	42.61(.52)	45.5 (.63)	42.3 (.68)	45.3 (1.01)

Notes: C/AS= Ration of clauses to AS units; DGV= Different grammatical verbs used.

In order to determine whether the mean differences across the groups were of statistical significance, one-way between-groups ANOVAs were run (see Table 3). It should be noted that though the normality assumption is required by many statistical tests such as ANOVA, it is often overlooked that such

tests are robust against a violation of this assumption if sample sizes are reasaaeee (...e., $N \geq \dots$)). Therefore, normality tests are only needed for small sample sizes. However, to enhance the statistical power of the analyses, prior to running ANOVA, the Kolmogorov-Smirnov test was used to check the suitability of the obtained data with regard to meeting its assumptions (see Appendix C).

Table 3: Results of one-way between-groups ANOVAs on the effects of task implementation on particiaatt ' ' speech

Dependent Variable		Mean Square	Eta Squared	F	Sig.
Syntactic complexity	Between Groups	.014	.51	16.386	.000
Syntactic variety	Between Groups	26.279	.50	17.608	.000
Correct clauses	Between Groups	24.667	.62	23.926	.000
Correct verbs	Between Groups	31.641	.36	12.089	.000
Rate A	Between Groups	27.772	.53	31.275	.000
Rate B	Between Groups	43.739	.76	80.396	.000

As displayed in the above table, implementing the narrative task under fffferett cttttt tttt fffferiiii ally affecsss aariicsssssss eerfr cccc es as measured in terms of syntactic complexity, $F(3, 56) = 16.38$, $p = .000$, syntactic variety, $F(3, 56) = 17.6$, $p = .000$, correct clauses, $F(3, 56) = 23.92$, $p = .000$, correct verbs, $F(3, 56) = 12.08$, $p = .000$, rate A, $F(3, 56) = 31.27$, $p = .000$, and rate B, $F(3, 56) = 80.39$, $p = .000$.

The results of one-way ANOVAs suggest that different combinations of pre-task planning and post-task transcription have caused statistically significant differences in oral performance. The large effect sizes reported in Table 3 ($\eta^2 = .51, .50, .62, .36, .53, \text{ and } .76$) confirm strong associations between task implementation conditions and oral performance in terms of syntactic complexity, syntactic variety, correct clauses, correct verbs, Rate A, and Rate B, respectively. To pinpoint the exact locations of significant mean differences, post-hoc Scheffe test was run (see Table 4 below).

The first research question was posed to determine how pre-task planning affected the CAF of L2 speech. With complexity, the findings set out in Table 1 showed that planning strategically prior to task performance benefits L2 speech. As shown in Table 4 below, the mean complexity difference between the PTP and control groups was statistically significant ($p < .000$). Thus, compared with the control group, participants in the PTP group generated a significantly higher level of syntactic complexity as well as variety in terms of grammatical verbs used.

With respect to accuracy, on the other hand, though planners performed more accurately than those who were in the control group, the mean differences were not statistically significant ($p = .096; p = .166$). Hence, pre-task planning is not associated with increased accuracy. Regarding fluency, the statistical analyses reported in Table 4 uphold the facilitative influence of pre-task planning on this aspect of speech ($p = .000$). Therefore, it can be deduced that allowing learners to prepare their speech before task performance, enhances the fluency of their production.

Table 4: Statistics for post-hoc Scheffe tests on the impact of task implementation on accuracy and fluency

Measure	Locations of Significant Mean Differences					
	<u>Control</u> PTP	<u>Control</u> PTP/PTT	<u>Control</u> PTT	<u>PTP</u> PTP/PTT	<u>PTP</u> PTT	<u>PTT</u> PTP/PTT
C/AS	.000*	.009*	.56	.037*	.000*	.22
DGV	.000*	.019*	.418	.007*	.000*	.475
Correct clauses	.184	.000*	.023*	.000*	.812	.000*
Correct verbs	.249	.000*	.038*	.004*	.828	.046*
Rate A	.000*	.000*	.947	.915	.000*	.000*
Rate B	.000*	.000*	.716	.897	.000*	.000*

*Mean difference is significant at the .05 level

The second question related to the impact of post-task transcription on the CFF ff aariicsssssss seeec.. Concerning complexity, the findings show that expecting a post-task transcription work does not exert a statistically significant effect on syntactic complexity ($p = .56$) and syntactic variety ($p = .418$). By contrast, the mean accuracy differences between the PTT and control group were of significance with respect to correct clauses ($p = .023$) and correct verbs ($p = .038$), which confirms the better performance of the former group. Regarding fluency, the results of Scheffe statistical analyses reported in Table 4 fail to show any significant mean fluency differences between the PTT and control groups ($p > .05$). In summary, anticipation of post-task transcription enhances focus on form as measured in terms of correct clauses and verbs; however, this implementation option does not yield any significant effects on complexity and fluency.

The third research question was asked to examine the effects combination of pre-task planning and post-task transcription might exert on the CAF in L2 speech. The answer to this question was provided by comparing the performances of participants in the PTP/PTT group with those who performed

under the control condition. Concerning complexity, the findings presented in Table 4 make it clear that pre-task planning together with the foreknowledge of doing a post-task activity generates more complex L2 speech ($p < .05$). More precisely, planners who were also required to transcribe their performance after task performance produced more complex narrations. Nevertheless, a closer scrutiny of the post hoc Scheffe results set out in Table 4 lays it bare that the PTP/PTT group produced significantly less complex speech than the PTP group ($p < .05$). The theoretical significance of this interesting finding will be explained in the following section.

In the case of accuracy, the inferential statistics established the significance of mean differences between the PTP/PTT and control group, pointing to the better performance of the former ($p < .000$). Interestingly, this condition seems to be the most efficient for focusing on form as it caused the highest level of accuracy among the four performance conditions. The significance of this observation will also be expounded below. In summary, it might be safe to conclude that the synergistic effects of pre-task planning and foreknowledge of post-task transcription activity are reflected in the highest level of accuracy. Finally, the comparison of fluency means across the PTP/PTT and control group indicates that the participants in the former exceeded those in the latter group ($p < .000$). Hence, with respect to the third research question, the findings suggest that the combination of pre-task planning and expectation of post-task transcription brings about gains in all performance areas.

DISCUSSION

This research sought to examine the way pedagogical intervention via manipulating task implementation variables impacts resultant speech. In doing so, the synergistic effects of pre-task planning and post-task transcription were examined. In this section, the results reported above are summarized and discussed with respect to available research outcomes and pertinent theoretical issues.

As regards the influence of planning before doing a task on different dimensions of L2 speech, it was observed that pre-task planning makes for more complex oral discourse. This finding accords with the results presented by earlier research (e.g., Foster & Skehan, 1996; Gilabert, 2007; Li & Fu, 2016; Wendel, 1997; Yuan & Ellis, 2003), lending further support to the contribution of pre-task planning to higher levels of complexity. For accuracy, however, a different picture emerged as the mean differences between the PTP and control groups were insignificant. This finding upholds the conclusion reached by Yuan and Ellis (2003) and Li, Chen, and Sun (2015) who failed to find any significant accuracy gains accrued from the presence of pre-task planning but runs counter to the outcomes of Ellis (1987) and Mehnert (1998) who documented more accurate performance elicited under pre-task planning condition. With respect to fluency, the results provide further evidence for the clear and consistent beneficial effects previously offered in the literature (Gilabert, 2007; Li & Fu, 2016; Li et al., 2015; Tavakoli & Skehan, 2005).

Yuan and Ellis (2003) present a viable psycholinguistic explanation for the effects of planning before task performance on L2 speech, attributing its favorable effects to facilitated conceptualization where the speaker forms the propositional content and accesses the isolated chunks of language needed to encode such content. More detailed conceptualization, they reason, leads to gains in complexity and fluency not accuracy. Though learners might carefully formulate their speech during planning time, online processing pressure caused by limited attentional capacity prevents them from focusing on the forms they have already planned. Yuan and Ellis reason that although learners might try to effectuate a detailed formulation, during task performance they are unlikely to remember the forms they have previously planned. In effect, during task performance they are more likely to remember content not linguistic encodings. Along the same lines, there are grounds to deduce that the opportunity to plan makes for an elaborate conceptual plan of the content learners wish to express rather than linguistic forms (Ellis, 2005).

Concerning the way predicting a post-task transcription activity influences the linguistic quality of L2 speech, the results indicated a favorable impact on accuracy. The inclusion of this task implementation option, however, did not result in any significant changes in complexity and fluency. These results were in accordance with Foster and Skehan (2013) whose findings confirmed the hypothesis that the anticipation of an additional activity following the task performance (i.e., transcription) can affect learners' accuracy. These researchers documented positive effects on accuracy of production elicited through both narrative and decision-making tasks. Facilitative effect on complexity was observed only for the decision task and fluency was not affected. The fact that when learners are informed of the requirement to do a post-task transcription work they generate more accurate speech may be accounted for by reasoning that asking learners to transcribe involves converting and confronting their output to a kind of accessible and salient self-input which is more likely to be accessible and salient; a performance condition which pushes them to more attentively monitor their production and check it in terms of targetlikeness (Foster & Skehan, 2013). It may also be plausible to reason that the act of transcribing assists learners in monitoring their output as a seemingly error free utterance may turn out to be erroneous once it is converted into written form (Cooke, 2013, cited in Hsu, 2017).

Regarding the synergistic influence of pre-task planning and post task transcription, which was actually the main focus of the present investigation, the outcomes presented evidence for the advantageous impact of this condition on all performance areas. More precisely, though pre-task planning elicits more fluent and complex speech, the combination of planning and post-task transcription brings about increased fluency, complexity and, accuracy. More importantly, this performance condition generated the highest accuracy level across the four conditions. This noteworthy finding advances our current wealth of research evidence regarding the effects of planning, providing another possible explanation for the mixed accuracy results reported to date. As was pointed to above, planning research suggests a clear and consistent

positive impact on fluency and complexity, but mixed effects on accuracy of L2 output. Accordingly, it seems reasonable to hypothesize that the effect planning causes on accuracy of speech is regulated by the existence of post-task pedagogic intervention in the form of learners' foreknowledge of transcribing their performance. In other words, planning enhances accuracy if learners anticipate transcribing their performance.

Lastly, as reported above, in comparison with the pre-task only, the combination of pre-task planning and post-task transcription made for more accurate but less complex speech. This result would seem to accord with the limited capacity view of attention (Schmidt, 2001), and provides confirmation for Seeah's Trade-off Hypothesis (Skehan, 1998), in that focusing limited attention on one aspect of speech may lead to negative effects on other components. Specifically, the results chime with Foster and Skehan (1996) who reason that the trade-off involves complexity and accuracy, such that an exponential gain in accuracy is achieved at the cost of complexity. This piece of evidence is of particular theoretical significance as it helps render a well-documented and empirically robust theory of the functioning of planning by considering what factors mediate its influence on L2 production (Ellis,

CONCLUSIONS AND IMPLICATIONS

The major aim of the current investigation was examining whether and how the combination of pre-task planning and post-task transcription influences the resultant speech. The findings confirmed previous results as to the overall facilitative effects pre-task planning causes on generating more complex and fluent L2 speech. However, the most notable contribution of this study to the available body of findings in the literature is that pre-task planning, when coupled with the anticipation of doing a post-task transcription activity prompts L2 learners to concentrate on both the content and form of their speech as indicated by increased complexity, accuracy, and fluency. This piece of evidence is of particular theoretical significance as it helps render a well-documented and empirically robust theory of the functioning of planning by considering what factors mediate its influence on L2 production (Ellis,

2009). The results presented here also bear pedagogical significance highlighting the importance of manipulating task implementation options as effective pedagogical intervention tools with the aim of fostering a smart access to form for learners' progress... Analyzing task design and implementation relative to such a tripartite view of performance is of central importance because it is related to a sequence through which L2 is acquired and developed (Bui & Skehan, 2018). Nevertheless, the study has some limitations which should be acknowledged. Firstly, given that the current research was not a longitudinal one, a degree of caution is required in generalizing from the findings. Secondly, the findings are limited to narrative tasks based on picture prompts. Thus, further longitudinal investigations in different settings with diverse tasks (e.g., direction giving, decision making, and opinion gap) are definitely needed to offer more robust empirically grounded evidence for the extent to which such effects may carry over to other tasks assigned to be completed on dissimilar occasions.

Disclosure statement

No potential conflict of interest was reported by the authors.

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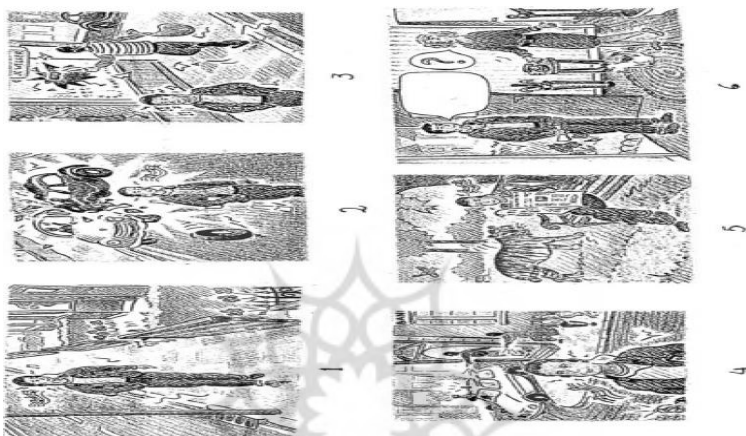
APPENDICES

APPENDIX A

The narrative task (the Walkman, adopted from Swain and Walter, 1990)

Task Instruction

Please describe the story which these six pictures show in English. You should produce at least 4 sentences and your story should be as detailed as possible.



Sample rater's transcriptions of learner's audio-recorded performances

1) *The photo showsa man... He walks....on the street which very.... busy.... Because he is.... listening music, he doesn't hear the voice of.... accidents. He can't notice the danger ofwild animal, accident and thieves.*

2) *I see the young man in pictures. Man has....wife. He isnot careful because... he listens to the music.... street has many dangers but ...the man is not careful... there istiger but doesn't kill him... there is accident and... thief in photo*

3) *The story is about a man. He is young and listens to..... somethings He passes the street and doesn't look at things.... A robber takes away somethings and police comes. After that.... a tiger isnear to himbut he goes to home and.... his woman is surprised*

APPENDIX B

Post-task transcription instruction

Please play your recorded speech and repeatedly listen to each phrase and closely transcribe the actual words you hear in a *Microsoft Word* document. Then, use the *track changes* function to check your transcription and correct the mistakes related to grammar, structure, and vocabulary.

Sample **students'** post-task transcription with **their** corrections

1) In the pictures I see the young man who ~~walk~~ is walking in the street. the street is full of ~~accident~~-accidents. I think because he ~~listens~~ is listening to ~~the~~ music, he can't hear any ~~sounds~~ noise. he doesn't see the thief and the accident. At the end, the tiger ~~pass~~ passes but ~~don't~~ doesn't kill him. he escapes ~~to~~ home safely

2) This is the story ~~is~~ about young ~~person~~ man. He is walking ~~on~~ in the ~~street~~ streets. very busy ~~street~~ streets. this ~~place~~-city is very dangerous because there is a ~~the robber~~ robbery, a tiger and an ~~accidents~~ accident. The man is very lucky because the tiger does not ~~eat~~ kill him and he goes ~~to~~ home and sees ~~a girl~~-his wife at last

3) The person in ~~picture~~ pictures is ~~uses~~ using headphones for listening to music. He is walking in street and many ~~thing~~ things happen. I think because music ~~noise~~ sound is loud he does not hear the noise of accident and the window ~~break~~ breaks. the police ~~come~~ comes and he does not see it. his ~~woman~~ wife is in the home and is surprised

APPENDIX C

Kolmogorov-Smirnov Test		Syntactic complexity	Syntactic variety	Correct clauses	Correct verbs	Rate A	Rate B
N		45	45	45	45	45	45
Normal Parameters ^a	Mean	1.0558	7.2960	30.0062	18.9284	49.0171	44.4758
	Std. Deviation	.04054	1.80995	1.63519	2.01235	1.47217	1.52275
	Absolute	.090	.154	.084	.091	.133	.140
	Positive	.090	.154	.084	.060	.133	.140

Most Extreme Differences	Negative	-.043	-.106	-.072	-.091	-.073	-.128
Kolmogorov-Smirnov Z		.604	1.036	.563	.609	.892	.939
<i>Asymp. Sig. (2-tailed)</i>		.859*	.233*	.910*	.852*	.404*	.342*

a. Test distribution is normal.

*Since p values are larger than 0.05, it can be deduced that the variables follow a normal distribution.

