J. Patuakhali Sci. and Tech. Uni. 2018, 9 (1&2): 263-274 ISSN 1996-4501

COMPLEXITY, ACCURACY AND FLUENCY IN BENGALI EFL-LEARNERS' ORAL PERFORMANCE

Md. Mehedi Hasan [1]

Abstract

Considerable research is there into the effects of planning time on second language (L2) oral performance, but different effects were found- some of them show increased accuracy, others increased complexity and/or fluency of language. In this study, 30 participants individually performed a narrative and an argumentative task under planned and unplanned conditions. Then, 10 of the participants took part in a retrospective debriefing. Both the oral narratives and retrospective reports were transcribed and analyzed manually. The results revealed that planning led to syntactically more varied but less accurate language while fluency remained unaffected. Significant effects of task type were observed, with argumentation outperforming narration on most measures. Furthermore, most participants had positive attitudes towards pre-task planning. The findings also suggest that choosing suitable task-based implementing conditions can support L2 learners in developing oral performances.

Key Words: Accuracy, Complexity, Fluency, Tasks, Pre-task Planning.

Introduction

EFL is an abbreviation for "English as a Foreign Language". English as a Foreign Language, or *EFL, refers* to learning and using English as an additional language in a non-English speaking country. This is mainly used to talk about students (whose first language is not English) learning English while living in their own country. Bangladeshi learners are, therefore, considered to be Bengali EFL-learners while they learn English in home country. Besides, *a* task refers to an activity which requires learners to use language in order to reach an objective. Tasks with different communicative demands and discourse characteristics are expected to yield different types of language. For example, an argumentative task requires learners to generate information with a good reason, which makes the task more demanding than simply describing a picture. Consequently, these two tasks might lead to different outcomes. However, there is difference of opinion among researchers about the effects of task types on L2 performances. Therefore, research on task-based language teaching (TBLT) has witnessed a steady interest in investigating the effects of task type on L2 performance. Consequently, pedagogical practices have been changed though there are "real issues in the design and implementation of TBLT courses" (Ellis, 2017).

Task effects on L2 production seem to be affected by task planning. Pre-task planning gives learners an opportunity to plan what language to use to perform the given task. Ellis (2005) highlights that pre-task planning contributes to the selective

[1]Associate Professor, Department of Language and Communication, Patuakhali Science and Technology University (PSTU), Patuakhali, Bangladesh.

attention to language form. The availability of pre-task planning time is also expected to reduce some of the cognitive burdens created by a task and to support learners to mentally organize the contents of a task and work on the formulation of the content. This kind of preparation may better support learners in assessing task demands and available linguistic resources. As a result, learners might focus attention on language form in their subsequent performances. The opportunity to plan might also lessen communicative stress and enable learners to focus their attention on form (Skehan, 1998). Thus, planning seems to act as an external trigger to encourage learners to focus both on form and meaning. However, there is little evidence of planning affecting all three dimensions of language production-complexity (the use of a wide range of structures and vocabulary), accuracy (the correct use of a language), and fluency (the ability to produce L2 with native like rapidity without undue pausing, hesitation or reformulation) (CAF) (Skehan, 2009).

Methodology

Design

This study utilized a 2×2 between-subjects design manipulating the factors planning condition (+/- pre task planning) and narrative and argumentative tasks. Thirty participants were randomly selected by the Department of Language and Communication at Patuakhali Science and University, and they were randomly divided into two groups to ensure that the two groups were equivalent in terms of their language competency. Each group performed two tasks: Narrative and argumentative under the same condition. For instance, a group performing an argumentative task under a + planning condition performed a narrative task under the same condition. All the participants performed the tasks separately.

Procedures

All the participants were provided clear instructions for the tasks completion by the researcher own-self, after they had consented for this study. In the planning group, students were asked to plan their performance in terms of content and organization. No further guidance was given. They were provided with a sheet of paper during planning time but they were told that these notes would be removed during task performance to ensure that the language elicited by the tasks was only oral. Furthermore, the notes provided some evidence about what the participants did during the planning time. However, in the no-planning group, students were not provided with any sheet of paper to write. Participants in both groups performed the tasks individually in a quiet room just in the presence of the researcher. Both groups performed the narrative task first.

On completion of tasks, each participant was asked to complete a questionnaire which comprisedseveral questions concerning their attitudes towards pre-task planning, the tasks used in the study, and their focus during pre-task planning and performing the tasks. Additionally, 10 participants were randomly selected for a retrospective interview to assemble immediate retrospective accounts that tapped into participants' memories regarding their pre-task planning and task performance.

Their planning notes and responses to the questionnaire were used to motivate accurate recall and help them to interpret the cognitive operations they employed in task planning and performance.

Questions

1. Are there any effects of pre-task planning on the CAF of EFL (English as a Foreign Language) learners' oral performances?
2. Are there any effects of task types on the CAF of EFL learners' oral performances?
3. What are the Bengali EFL learners' attitudes towards pre-task planning?

Results and Discussion

Effects of pre-task planning

Complexity: The effects of pre-task planning on CAF measures demonstrate a mixed picture. In the case of complexity, planning led to syntactically more varied language ($p<0.05$), but lexical complexity remained unaffected in both tasks ($p>0.05$). None of the other measures reached significance ($p>0.05$).

Table 1: Scenario of Complexity for the Factor +/_ Pre-task Planning

Argumentation							
	No Planning		Planning				
Dependent variable	M	SD	M	SD	P-value	Cohen's d	Partial
Sub clauses per T-unit	0.22	0.09	0.28	0.08	0.07	-0.70	0.52
Words per T-unit	12.95	2.18	13.18	2.41	0.78	-.10	0.50
Syntactic variety	39.20*	7.38	47.40*	7.04	0.04	-1.13	0.82
Type token ratio	0.41	0.04	0.43	0.04	0.29	-0.50	0.62
Narration							
	No planning		Planning				
Dependent variable	M	SD	M	SD	P-value	Cohen's d	Partial
Sub clauses per T-unit	0.18	0.04	0.21	0.07	0.09	-0.52	0.38
Words per T-unit	10.21	1.31	9.70	0.94	0.23	0.44	0.50
Syntactic variety	43.00*	6.01	50.80*	10.20	0.04	-0.93	0.65
Type token ratio	0.42	0.02	0.40	0.03	0.36	0.78	0.89

Note: M = mean; SD = standard deviation; * = significant at $p<.05$.

Accuracy: The mean percentage in all accuracy measures decreased under the planned condition in both tasks. However, the statistical analysis yielded significant differences only in terms of the percentage of error free T-units ($p<0.05$); and the number of errors per hundred words in both tasks ($p<.05$).

Table 2. Scenario of Accuracy for the Factor +/- Pre task Planning Time

Argumentation							
	No planning		Planning				
Dependent variable	M	SD	M	SD	P-Value	Cohen's d	Partial
Error-free T-units	80.77*	7.79	74.86*	11.20	0.04	0.61	0.33
Error-free clauses	85.72	5.15	81.55	8.20	0.96	0.61	0.96
Errors per 100 words	1.97*	0.61	3.92*	1.10	0.01	-2.19	0.99
Self correction	1.53	0.74	1.00	0.92	0.84	0.63	0.94
Narration							
	No planning		Planning				
Dependent variable	M	SD	M	SD	P-Value	Cohen's d	Partial
Error-free T-units	69.73*	10.09	61.73*	9.34	0.04	0.82	0.54
Error-free clauses	74.30	16.54	68.71	8.78	0.25	0.42	0.50
Errors per 100 words	2.10*	1.66	4.96*	1.17	0.03	-1.99	0.99
Self correction	3.73	1.43	3.00	1.41	0.09	0.51	0.36

Note: M = mean; SD = standard deviation; * = significant at $p<0.05$.

Fluency: The connection between planning and fluency is complicated. While the total number of syllables produced per minute indicated no planning effects, planning was associated with more repetitions in both tasks ($p<0.05$). The number of filled pauses increased with planning time in argumentation but decreased in narration ($p<0.05$), but the opposite picture emerged with false starts. The number of false starts sharply decreased in planned argumentation but sharply increased in planned narration; the groups in both tasks yielded significant differences ($p<0.05$).

Table 3. Scenario of Fluency for the Factor +/- Pre-task Planning Time

Argumentation							
	No planning		Planning				
Dependent variables	M	SD	M	SD	P-value	Cohen's d	Partial
Syllables per min	143.13	17.97	133.53	19.39	0.34	0.51	0.67
Filled pauses	40.53*	18.17	54.93*	14.46	0.02	-0.88	0.48
Repetitions	53.13*	16.92	64.86*	16.54	0.01	-0.70	0.22
False starts	7.73*	3.03	4.20*	1.54	0.02	1.47	0.93
Narration							
	No planning		Planning				
Dependent variables	M	SD	M	SD	P-value	Cohen's d	Partial
Syllables per min	116.12	14.89	128.23	29.76	0.06	-0.51	0.30
Filled pauses	60.13*	6.27	43.46*	10.37	0.73	1.95	0.99
Repetitions	24.06*	10.29	52.13*	10.69	0.04	-2.68	0.99
False starts	3.80*	1.85	7.00*	3.22	0.01	-1.22	0.71

Note: M = mean; SD = standard deviation; * = significant at $p<0.05$.

With respect to the first research question (i.e., Are there any effects of pre-task planning on the CAF of EFL learners' oral performances?), the results revealed varied outcomes. Pre-task planning seems to affect all three CAF measures, but in different ways. With regard to complexity, it replicates the findings of most previous studies as planned performances were syntactically more varied than unplanned ones. However, unlike Ellis and Yuan (2004) claim that planning triggers lexically more varied language, lexical complexity in this study remained unaffected. Additionally, these findings are not supported by Crookes' (1989) and Ortega's (1995)which concluded that planning can lead L2 learners

to produce more developed speech in the short-term. It might indicate that planning condition did not focus on detailed lexical searches. The notes collected from planning groups also indicated that the students did not search for lexical items as most of the notes contained very few lexical items and most of them were verbs in past forms. Thus, it can be assumed that planning was presumably accompanied by a search for verb forms and necessary patterns to express meaning. Most of the interviewed participants also reported that their main focus was on grammar during planning time. The lack of pre-task planning effects on lexical variety might also reflect the fact that they prioritized lexical search during performance. Levelt's (1989) speaking model, which describes speech production as an autonomous process and comprised three overlapping stages, conceptualization (which provides general knowledge and discourse knowledge as an input to the next stage), formulation (which translates the conceptual representation into linguistic structures) and articulation (which transforms linguistics structures into actual speech), also claims that speakers prioritize conceptualization over formulation and articulation. Then, with regard to fluency, consistent with Mehrang and Rahimpour's (2010) finding, participants under the planned condition were no more fluent than the participants under no planning condition. However, the results did not corroborate previous research findings on task planning. Two explanations can be offered to account for this discrepancy. One reason could be the time factor, as both pre-task planners and no-planners were required to perform the tasks under time pressure. However, the participants in most previous studies were allowed to take as long or as little time as they wanted. As claimed by Yuan and Ellis (2004), the need to complete the tasks within a limited time and to produce a minimum number of sentences for each picture in the narration and a minimum number of examples and reasons to support their opinion in the argumentation might have caused the no-planners to speak more rapidly than they might have done had they been free to perform the tasks in their own time. Another possible explanation could be the nature of unguided planning which might mitigate the desired effects of planning on the participants.

In general, planning seems to affect complexity positively, accuracy negatively but it seems to have limited effects on fluency. In other words, this study finds that the primary competition is between complexity and accuracy; complexity is promoted to the detriment of accuracy.

Task type effects

Complexity: The argumentation in general produced more complex language than the narration did. The argumentative texts were much more complex in terms of the number of sub-ordinate clauses per T-unit ($t(58)=2.72$, $p<0.05$) and the number of words per T-unit ($t(58)=6.69$, $p<0.05$). However, syntactic variety and type-token ratio remained unaffected.

Table 4. Scenario of Task Type Effects on Complexity

	Argumentation		Narration				
Dependent variable	M	SD	M	SD	P-value	Cohen's d	Partial
Sub clause per T-unit	0.25*	0.09	0.19*	.06	0.01	0.78	0.28
Words per T-unit	13.06*	2.26	9.95*	1.15	0.01	1.73	0.97
Syn. variety	43.60	7.23	46.90	8.09	0.38	-0.43	0.62
Type-token ratio	0.42	0.04	0.41	0.03	0.12	0.28	0.21

Note: M = mean; SD = standard deviation; * = significant at $p<.05$.

Accuracy: The argumentation promoted more accurate language than the narration; significant differences can be observed in all the first three measures ($p<0.05$). However, the participants self-corrected more in narration than in argumentation, $t(58)=-6.80$, $p<0.05$).

Table 5. Scenario of Task Type Effects on Accuracy

	Argumentation		Narration				
Dependent variable	M	SD	M	SD	P-value	Cohen's d	Partial
Error-free T-units	77.85*	9.53	65.71*	10.31	0.01	1.22	0.71
Error-free clauses	83.63*	7.05	71.51*	13.32	0.01	1.14	0.64
Errors per hundred words	2.99*	1.00	3.51*	1.52	0.02	-0.40	0.10
Self-corrections	1.26*	0.86	3.36*	1.42	0.01	-1.79	0.98

Note: M = mean; SD = standard deviation; * = significant at $p<0.05$.

Fluency: The participants were more fluent in the argumentation than in the narration; the argumentation produced more syllables per minute than the narration ($t(58)=3.75$, $p<0.05$) with less filled pauses ($p<0.05$). However, the argumentation was associated with more repetitions than the narration.

Table 6. Scenario of Task Type Effects on Fluency

	Argumentation		Narration				
Dependent variable	M	SD	M	SD	P-value	Cohen's d	Partial
Syllables per minute	138.33*	18.01	122.13*	21.21	0.01	0.82	0.32
Filled pauses	47.63*	28.06	51.79*	9.96	0.01	-0.20	0.02
Repetitions	58.90*	20.14	38.09*	10.41	0.01	1.30	0.78
False starts	5.96	2.60	5.40	3.05	0.08	0.20	0.11

Note: M = mean; SD = standard deviation; * = significant at $p<0.05$.

Here, in order to address the second research question (i.e. 'Are there any effects of task types on the CAF of L2 learners' oral performances?'), the participants were asked to perform two different tasks, such as narrative and argumentative tasks. These two types of task, like in most previous studies, pushed learners in different directions; their effects were observed in all three dimensions (CAF), with argumentation outperforming narration. In the case of complexity, argumentation produced syntactically more complex language. The numbers of sub-ordinate clauses and words per T-unit were significantly higher in argumentative texts. However, lexical complexity was not affected. With regard to accuracy, striking differences were observed between the two tasks. The argumentative task produced far more accurate language than the narrative one, although the participants self-corrected more in the narration. A somewhat similar scenario emerged for fluency measures. The argumentative task produced more fluent speech than the narrative one in terms of the speed fluency measure (the number of syllables produced per minute) although it involved more repetitions. Thus, the findings provided support to the claim made by Bygate (1999a) and Skehan (1998) that the extent to which learners expand the complexity of their language or attend to the accuracy or fluency of their performance is affected by the nature of the task. In other words, the language variation indicated in this study might have resulted from the demand and the purposes of the two tasks along with the cognitive load and clarity of tasks goals. It has been widely argued that different tasks generate different patterns of language use.

Bengali-EFL Learners' Attitudes Toward Pre-task Planning

To understand participants' attitudes regarding pre-task planning and the cognitive operations involved in planning and task performance, each participant was asked to respond to a questionnaire and 10 of them also took part in a retrospective interview.

The participants' own attitudes towards pre-task planning were considered to be important as they might help the researcher to find out how and why planning worked or did not work. It was observed that the majority of the participants (23 out of 30) had positive attitudes toward planning. Being able to jot down ideas and organize contents were the two distinct benefits afforded by pre-task planning:
"I found pre-task planning very much helpful for me. It helped me to remember important points necessary for the task completion. Additionally, I could plan about how to present the points in a correct order" (Participant C)

"Pre-task planning offered me an opportunity to organize my thoughts" (Participant F)"During planning, I could list all the important information related to the question" (Participant B)

Half or more (55%) also thought that planning provided them with an opportunity to assess task demands and prioritize their attention accordingly.

"I was really lost when I first read the question. I could not understand what kind of information had to be included in my answer; planning time helped me to understand the task better" (Participant A)

"Pre-task planning helped me to understand the task demands and focus only on important points needed for the task performance" (Participant D)
However, it was found that the participants' appraisals of the putative benefits of pre-task planning fell into three patterns. All the participants were found to have maximally utilized their planning time. In the narrative tasks, almost all the participants (13 out of 15) spent five minutes understanding the content, outlining the main events, and retrieving lexis and grammar. However, two participants, who did not make any notes during planning, reported that they just tried to see the linkage between the pictures. Likewise, in the argumentative task, most of the participants (12 out of 15) engaged themselves in establishing the main ideas, and collecting some specific examples and reasons to support their views. However, three of the participants seemed just to retrieve lexis during planning and none seemed to try to rehearse speech in either task. During tasks performance, very similar to Kawachi's (2005) findings, some sort of divergence in task approach was found. The majority of participants (23 out of 30) were inclined to prioritize communication, while a few others (4 out of 30) expressed their natural predisposition toward accuracy in a very candid way and mentioned that they were worried about making mistakes. Furthermore, just three participants prioritized complexity. Interestingly, none tried to balance the CAF dimensions in their speech. It was also exposed that most of the participants noticed their errors, but none tried to correct them as they did not have time to edit their production: "I did not correct my errors as I did not have enough time to complete my story. I was just trying to speak as fast as I could" (Participant E); "I could notice some mistakes in my speech but I did not correct them as I thought that I would not finish the story within the given time" (Participant G).

Argumentation seems significantly more effective than narration in promoting L2

performances. This finding may be accounted for by a task-demand-based explanation, namely that the demands of the argumentative task for elaborated content may push learners to produce more words and more complex structures. However, the finding does not support Skehan's (1996) claim that narratives have lower cognitive and linguistic demands than argumentative task as the majority of participants through questionnaire and post-task interviews reported that the argumentative task was less complex to them than the narrative task. They gave two main reasons for their difficulty with the narration: it required fixed grammatical patterns (past tense), and they needed some sort of imagination to create a linkage between the pictures as the pictures did not seem to have clear connections. Additionally, the finding does not support Foster and Skehan's (1996) another claim that most difficult task produces most complex language as the narratives (more difficult task) produced less complex language in the study.

There are two tentative explanations for the task type effects observed in this study (i.e., argumentation outperformed narration in all the three measures). Firstly, students' performances in this study might have been affected by the order of presenting the students with the tasks. Specifically, giving students the narrative task (i.e., more complex task) first and then the argumentative task (i.e., less complex task) would negatively affect students' performances. Secondly, their performances might have been affected by their task familiarity. Dawadi (2019) argues that students perform better in a familiar task than in an unfamiliar task. The post-task interviews indicated that students were more familiar with argumentative tasks than with picture narratives. Nevertheless, the findings of this study advocate that when L2 tasks do not require learners to express complex ideas, learners attempt to achieve all the three aspects of speech performance (CAF).

Conclusion

The study has explored the nature of task-based EFL performance. It investigated three major issues associated with task based EFL performance of Bengali Learners: (a) the effects of planning on EFL performance, (b) the effects of task type on EFL performance, (c) EFL learners' attitudes toward task performance. The findings indicate that task planning and task type can have effects on the nature of EFL performance, and there are some interaction effects of planning and task types on EFL performance. However, it would be wrong to draw the conclusion that EFL learning and performance can be fully predicted on the basis of task characteristics and/or task implementation. What seems nearer the truth is that task-based "language use and development is a continual balance between the emergence, elaboration and exploitation of routines on the one hand, and ad-hoc variation and creativity on the other" (Bygate, 1999, P: 209). The patterning in the data discussed in this article suggests that this position is approximately correct. Furthermore, a trade-off relationship between CAF dimensions has been observed in this study. There is a

disagreement regarding the dimensions involved in the trade-off. However, this study claims that gains in complexity are offset by losses in accuracy (Bygate, 2001) when the results for planning effects are considered. It is also worth pointing out that EFL learners prefer to have pre-task planning as they feel more confident when they have planning time prior to the task performance.

References

Bygate, M. (2001). Effects of task repetition on the structure and control of language. In M. Bygate.

Bygate, M. (1999). 'Quality of language and purpose of task: Patterns of learners' language on two oral communication tasks.' *Language Teaching Research,* **3**: 185–214.

Crookes, G. (1989). Planning and inter language variation. *Studies in Second Language Acquisition, **11*** (4), 367-383.

Dawadi, S. (2019). The effects of task repetition on EFL oral performances. *ITL-International Journal of Applied Linguistics, **170*** (1), 3-23.

Ellis, R. (2017). Position paper: Moving task-based language teaching forward. *Language Teaching, **50*** (4): 507-526.

Ellis, R. & Yuan, F. (2004). The effects of planning on fluency, complexity, and accuracy in second language narrative writing. *SSLA, **26*** (1): 59–84.

Ellis, R. (2005). Measuring implicit and explicit knowledge of a second language: A psychometric study. *Studies in Second Language Acquisition,* **27:**141–172.

Kawachi .(2005). Empirical validation of a multimedia construct for learning. In Misha, S., & Sharma, R. Eds. Interactive multimedia in education and training. Hershey, PA: IDEA Group

Levelt, W. (1989). *Speaking: From intention to articulation*. Cambridge, MA: Massachusetts Institute of Technology Press.

Mehrang, F. and Rahimpour, M. (2010). The impact of task structure and planning conditions on oral performance of EFL learners. *Procedia Social and Behavioral Sciences, **2*** (1): 3678–3686.

Ortega, L. (1995). Planning and second language oral performance. Unpublished Master's thesis, University of Hawai`i.

Skehan, and Foster .(1996). A framework for the implementation of task-based instruction. *Applied Linguistics,* **17**: 38-62.

Skehan.(1998). A Cognitive Approach to Language Learning, Oxford: Oxford University Press.

Skehan (2009). Modeling second language performance: Integrating complexity, accuracy, fluency, and lexis. *Applied Linguistics*, **30** 510-532.

Yuan, F. and. Ellis, R. (2003). The effects of pre-task and on-line planning on fluency, complexity and accuracy in L2 monologic oral production. *Applied Linguistics*, ***24*** (1): 1–27.